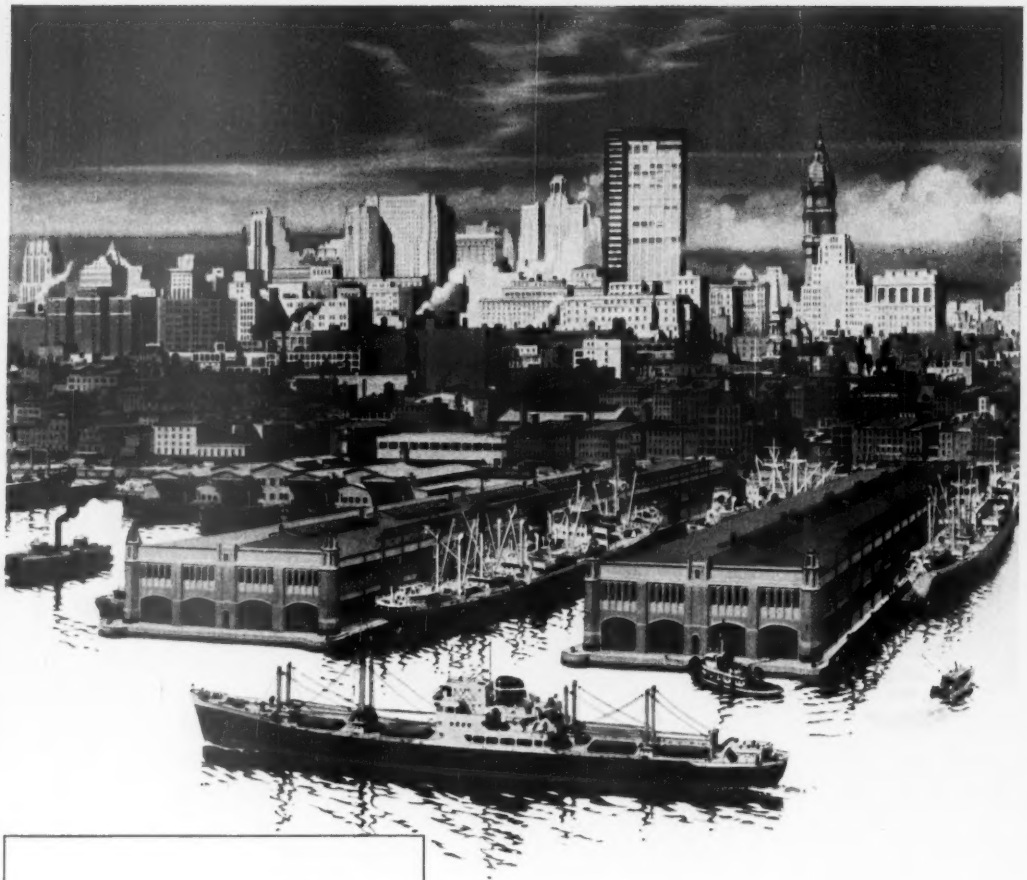
BUSINESS WEEK

WHAT'S AHEAD FOR THE
Hearst Empire
PAGE 110

Robert A. Lovett: For U.S. defense, the same course, more speed (page 158)

A McGRAW HILL PUBLICATION

SEPT. 22, 1951



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PHILADELPHIA ELECTRIC COMPANY

Serving the World's Greatest Industrial Area

RESEARCH KEEPS **B.F.Goodrich** FIRST IN RUBBER

Photo courtesy Radford Limestone Co.

Rocks to soften your train ride

A typical example of B. F. Goodrich improvement in rubber

THOSE big rocks are on their way to be crushed into little ones. With millions of tons needed, they have to be cheap — must be handled at low cost. Belts would have been the ideal way if belts had lasted several years.

But rocks dropped on them were so heavy and sharp they used to break the fabric reinforcement. Each break was a weak spot; belts wore out in a few years at best.

Then a B. F. Goodrich man suggested a B. F. Goodrich *cord* belt — made of cords running lengthwise. Each cord is entirely surrounded by rubber; top plies have no *cross* strands at all. Under a sharp blow the cords can spread apart, letting the rubber take the shock. It was a new kind of belt — new, that is, 12 years ago when this belt went to work in a rock-crushing plant. When this picture was taken it had carried over three million tons of rock, had lasted longer than any other belt ever used by the company, still looked good for years more.

Crushed rock is now so plentiful they use 1500 tons in a mile of railroad bed. Packed around the ties, holding the track firm, it makes your ride quieter, softer, smoother.

Thousands of other companies are reducing their costs, too, by using products improved by B. F. Goodrich research. Such improvements are being made constantly in conveyor belting, V belts, transmission belts, hose of hundreds of sorts, and every other kind of rubber product. That's why it pays to keep in touch with your B. F. Goodrich distributor for the latest ways to save with rubber. *The B. F. Goodrich Company, Industrial & General Products Division, Akron, Ohio.*

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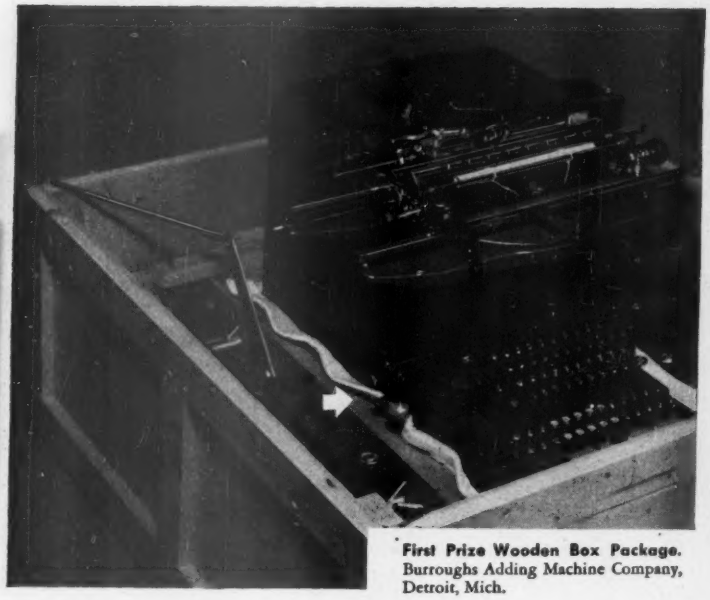
RUBBER FOR INDUSTRY

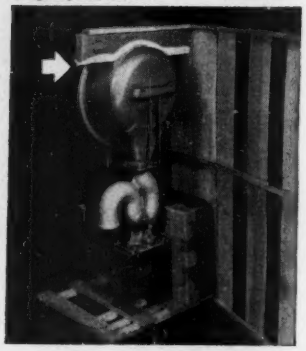
Prize-winning packages feature

Kimpak Float Packaging!*

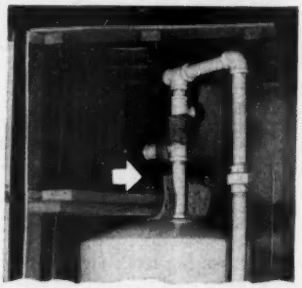


First Prize Wooden Box Package. Burroughs Adding Machine Company, Detroit, Mich.

Shur Oil Changer and Flusher, manufactured by Grieve-Hendry Company, Chicago, Ill. Wire-bound crate by Rachborne, Hair & Ridgeway Box Co.



Surgical Bed Pan Sterilizer, manufactured by Ohio Chemical & Surgical Company, Madison Wis. Wire-bound crate by General Box Co.



Thick KIMPAK pads are used at top and bottom of this tank.

Water Softening Tank, manufactured by Culligan-Zeolite Co., Northbrook, Ill. Wire-bound crate by General Box Co.

It's no strange coincidence that many winners in the 1950 Industrial Packaging & Materials Handling competition used KIMPAK* protective cushioning at one point or another. One of the reasons why this is true—the extreme versatility of KIMPAK—is demonstrated by four of the winners shown here. However, there are *several* reasons why so many, *many* companies who have switched to KIMPAK, turn in prize-winning packages each year.

KIMPAK is a pre-fabricated, grit-free material—soft, clean, easy to apply as wrapping paper. It comes in rolls or sheets, and can be "tailored" to meet your particular packaging requirements. Because it is not a waste material, KIMPAK saves you money in the shipping room—"saves" you customers who are ordinarily annoyed by the mess and inefficiency of loose-fill substitutes. Truly, KIMPAK protective cushioning affords optimum protection to packaged products at lowest true cost.

Try KIMPAK soon—for any of the Four Basic Methods of Interior Packaging—Bracing and Blocking, Flotation, Surface Protection, Absorbent Packaging. For further information, see your nearest KIMPAK distributor listed in classified telephone directories under "Packing Materials" or "Packing Materials—Shipping"; or write to:

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4 BIG REASONS
Why LYON Can Handle Your Sheet-Metal Subcontracts BETTER!

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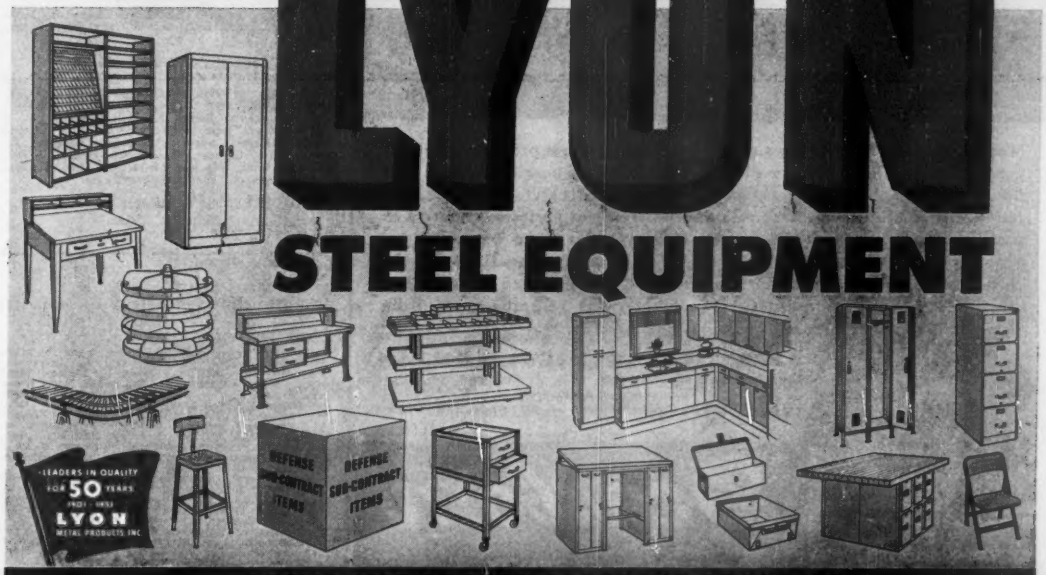
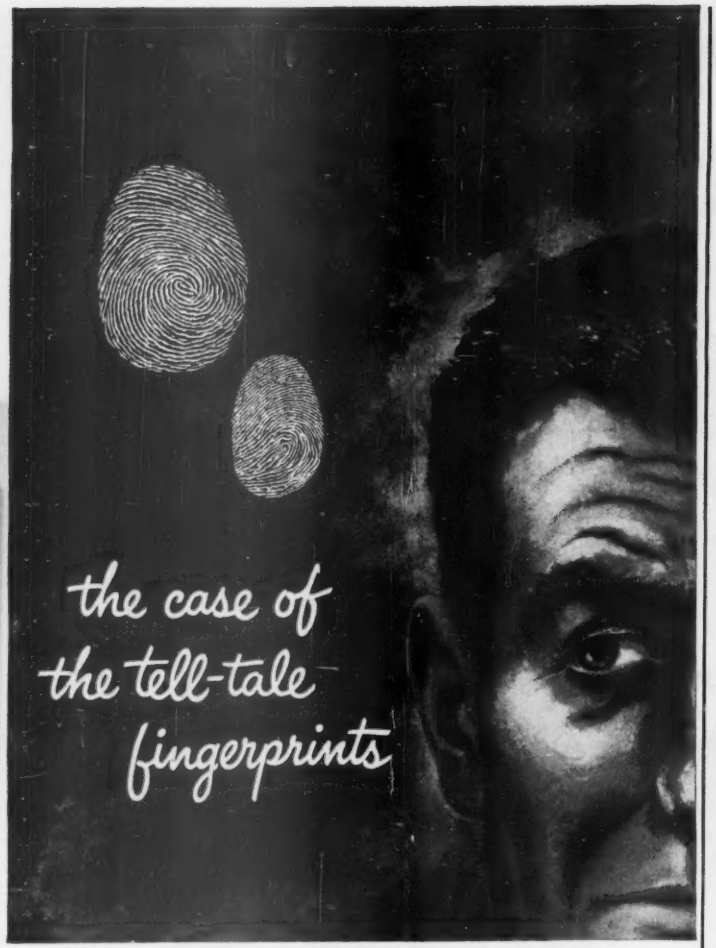
LYON
STEEL EQUIPMENT



A PARTIAL LIST OF LYON STANDARD PRODUCTS

• Shelving	• Kitchen Cabinets	• Conveyors	• Economy Locker Racks	• Display Equipment	• Filing Cabinets	• Service Carts	• Tool Stands
• Lockers	• Cabinet Benches	• Bar Racks	• Flat Drawer Files	• Drawing Tables	• Folding Chairs	• Sorting Files	• Shop Boxes
• Stools	• Storage Cabinets	• Tool Boxes	• Tool Room Equipment	• Revolving Bins	• Work Benches	• Drawer Units	• Tool Trays
• Bin Units	• Welding Benches	• Parts Cases	• Wood Working Benches	• Hanging Cabinets	• Bench Drawers	• Hopper Bins	• Shop Desks



Worry showed in the furrows on the brow of the plant production manager. Before him lay a return shipment of precision bearings, pitted and badly corroded. A week before, these same bearings, carefully packed, had left the plant shining and bright in their micrometer perfection. Here was a mystery that had to be solved. The Dearborn Engineer was called in. Slowly, he and the production manager turned the ball bearings over in their hands. Telltale fingerprints had caused the bearings to corrode. The story had a happy ending. Dearborn Fingerprint Neutralizer saved the day—eliminating corrosion, speeding production.

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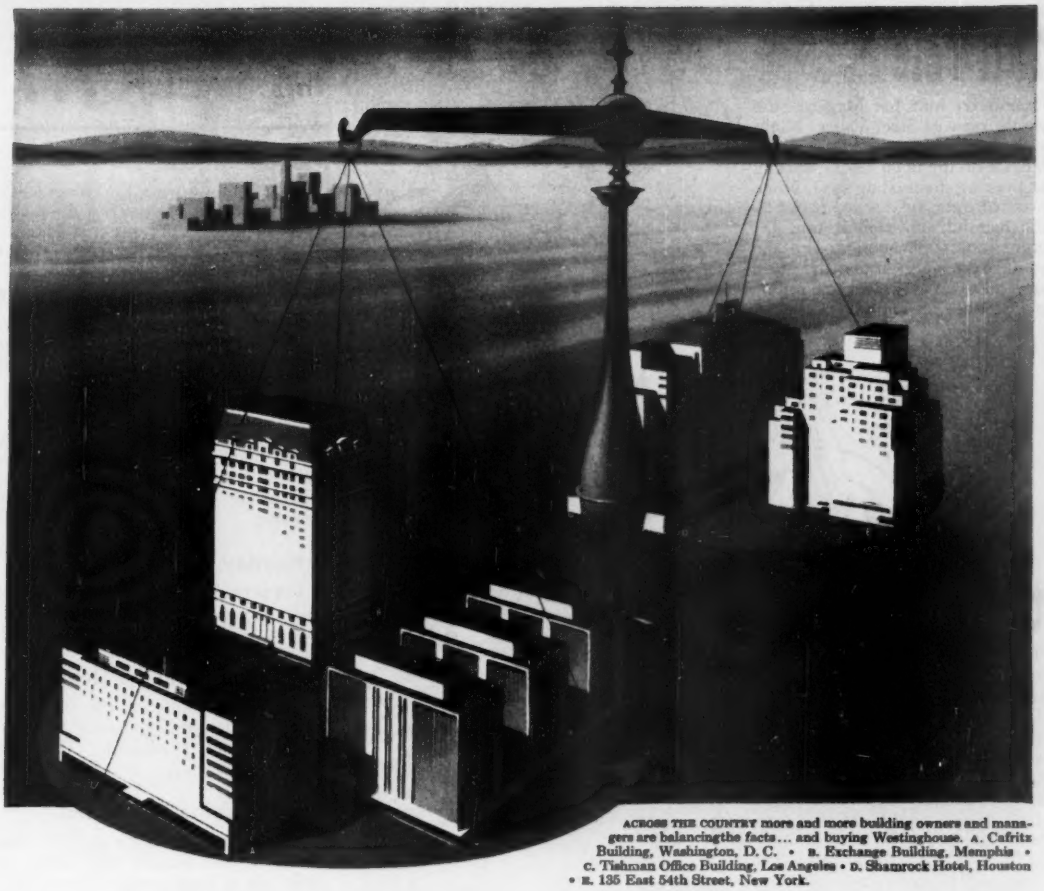

ACROSS THE COUNTRY more and more building owners and managers are balancingthe facts... and buying Westinghouse. A. Cafritz Building, Washington, D.C. • B. Exchange Building, Memphis • C. Tishman Office Building, Los Angeles • D. Shamrock Hotel, Houston • E. 135 East 54th Street, New York.

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DOW CORNING SILICONE NEWS
NEW FRONTIER EDITION
(SIXTH OF A SERIES

Tall Tale

Heat never hurt Joe Magarac, the strong man of Steel Valley. Night and day he'd sit in the door of No. 7 furnace on the open hearth, stirring and tasting the melting steel. When it tasted right, he'd scoop it out by the handful and spill it into the ingot molds. Then he'd take and squeeze the ingots until the prettiest steel rails you ever saw came rolling out between his fingers.

to Fabulous Fact

They say Joe Magarac was made of iron and that's why heat never hurt him. Same's true in a different way of Silastic*, the Dow Corning silicone rubber. Built on a heat-stable skeleton of silicon and oxygen atoms taken from sand, Silastic thumbs its nose at heat and cold. It's the only rubberlike material that won't melt or become brittle at temperatures from −100° to over 500° F. That's why they use Silastic to hold hot oil in aircraft engines and automobile transmissions; to seal aircraft heating and deicing systems and to keep cooling fins on aircraft engine cylinders from breaking. Silastic also keeps your steam iron from leaking; insulates diesel-electric locomotive motors; keeps communication systems operable in warships under fire; retains its properties at temperatures too hot or too cold for any other rubbery material.

*T. M. REG. U. S. PAT. OFF.

Write Today for our new 1951-52 *Reference Guide E-9 to the Dow Corning Silicones that improve products and production methods.*

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SIGHT SAVERS SILICONE TREATED EYEGLASS TISSUES
KEEP YOUR GLASSES TWICE AS CLEAN, TWICE AS EASY
SIGHT SAVERS
10¢ At All Drug and Tobacco Counters

In BUSINESS this WEEK . . .

• 6% for Merit

That's the yardstick the Salary Stabilization Board is setting up for executive pay hikes. But there are lots of qualifications and exceptions. P. 24

• Why Advertisers Leave Home

All of a sudden, accounts that have stayed put for years have started jumping to other agencies. P. 43

• Into the Round File . . .

. . . goes a lot of the costly educational material that business supplies to the schools. Teachers say they wastebasket it because it's no help in teaching. P. 64

• Heyday Ahead

For petrochemicals—the industry that makes things out of oil: fourfold expansion by 1962. P. 130

• Moderation in All Things

That's the motto of the Voluntary Credit Restraint program, designed to stop inflationary lending. How's it working? P. 148

• Cash on the Barrelhead

Big Three talks make it plain that the U.S. will have to pay heavily to build up a strong anti-Russian force in Western Europe. P. 169

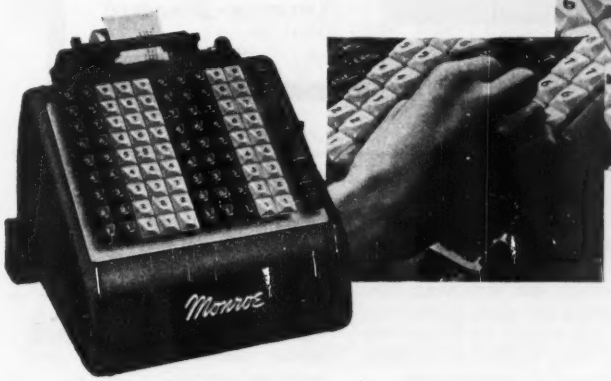
THE DEPARTMENTS

Architecture	60
Aviation	91
Business Abroad	169
Business Outlook	9
Defense Business	160
Facilities	84
Figures of the Week	13, 100
Finance	148
International Outlook	167
Labor	30
Management	64
Marketing	43
The Markets	156
Music	70
Names and Faces	158
New Products	142
Production	130
Publishing	110
Readers Report	55
Regional Report	118
Small Business	98
Technology	78
The Trend	176
Washington Outlook	15

Easy Does it...

Gentle as the kiss of a trout fly on a pool—Monroe's "Velvet Touch", unquestionably the lightest, yet positive, action ever engineered into an adding machine.

That's why wherever businessmen seek swift precision in figure work, you'll find them using more and more of these superb instruments.



- ☆ Glareless, Cushion-topped Keys save eyes, nerves, effort
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- ☆ Stepped-up Safety Keyboard minimizes chances of error
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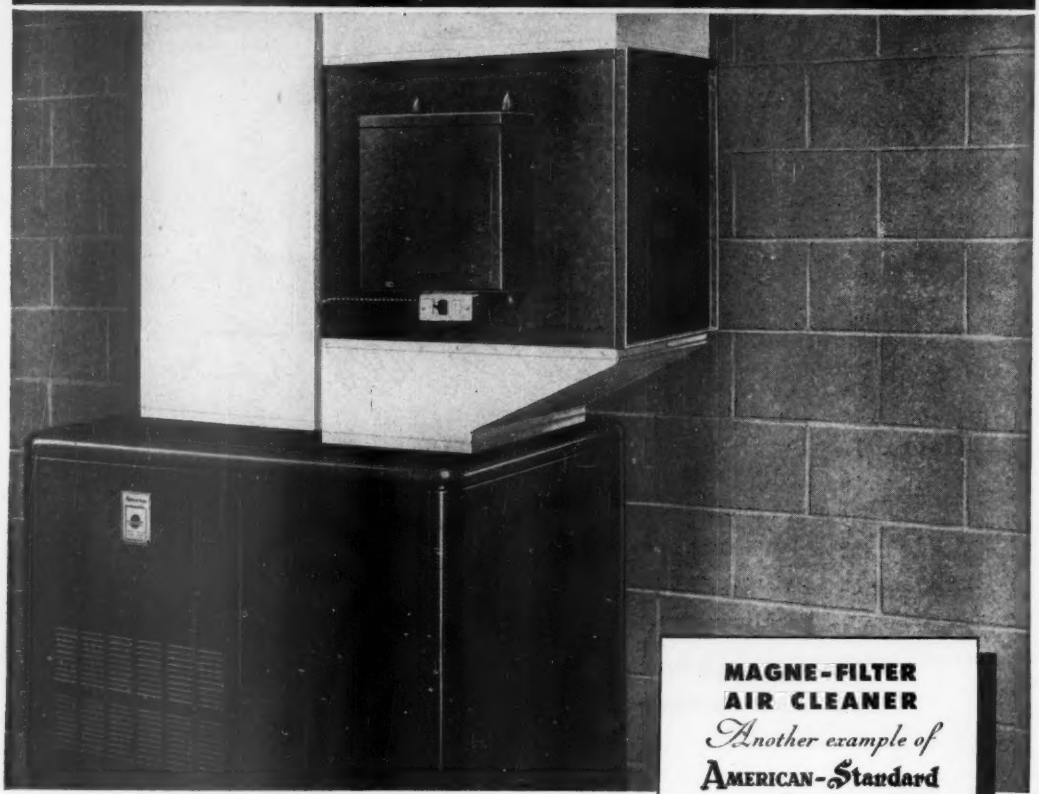

MAGNE-FILTER AIR CLEANER

Another example of

AMERICAN-Standard

Leadership

● The compact unit located above the winter air conditioner shown here is the new Magne-filter Air Cleaner by American-Standard. It is the first *dry type* electronic air filter on the market.

The Magne-filter is more than a filter. It is more than an electronic air cleaner. It is a combination of both, cleaning the air your heating or cooling system circulates throughout your home. Every solid in the air—including dust, dirt, pollen, bacteria and even tobacco smoke—is trapped by the electrostatic action of the filter cells in the Magne-filter in the same manner a magnet attracts iron.

The Magne-filter Air Cleaner saves hours of housecleaning time. It cuts down cleaning and decorating bills. And it makes the whole house more healthful. No wonder the Magne-filter is rapidly being accepted as an indispensable part of the modern home.

The Magne-filter can be easily and quickly installed in the return air duct of your winter or summer air conditioner. Safe, quiet and extremely cheap to operate, it uses only about as much electricity as a 25-watt light bulb.

In introducing the Magne-filter Air Cleaner, American-Standard makes another contribution to health and comfort.

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BUSINESS OUTLOOK

BUSINESS WEEK
SEPT. 22, 1951

A BUSINESS WEEK SERVICE

Business now appears to be rising slowly—in the face of declines in both homebuilding and auto output.

That was the combination many predicted would cause trouble in last year's fourth quarter. But the dip in these two all-important industries wasn't felt until late in this year's second quarter.

And, when it came, it wasn't accompanied by any noteworthy unemployment. From now on, its impact will be negligible because of rising output for the military.

•

Auto shortages aren't likely until next spring.

Output is down, to be sure. Yet we still are producing at the rate of more than 4½-million new passenger cars a year. And this, of course, is the slow season for sales.

Another slight decline in dealers' stocks in August probably isn't significant. People were probably buying a little faster than usual to beat the price markups.

•

Employment in Detroit picked up ever so slightly at the end of August. That followed four months of rising "conversion unemployment." The number with jobs dropped 15% during that period.

•

Workers drawing unemployment insurance remained an amazingly small total in this summer's slump. The figure has hung around 1-million for weeks.

But low unemployment has covered up something else: A lot of people with factory jobs haven't been working at them very much.

Actual figures on this are slow. But, from June to July, the number laid off rose from 10 per 1,000 to 17 per 1,000. And August's record probably wasn't much better than July's.

A year ago, layoffs numbered only 6 per 1,000 in July and August.

•

Prices haven't changed much in the last month. It's altogether probable that the decline is behind us.

The Bureau of Labor Statistics' wholesale index, which covers about 900 different items, hasn't moved since mid-August.

And the spot market average for 28 raw materials, which is much more volatile, has held in a 2-point range over the same period.

•

Prices of commodities produced in this country will be buoyed up by four major factors:

Supports will protect the prices of many farm products. Moreover, the seasonal decline is behind (except for meats).

Insatiable demand for metals will persist as far as anyone can see.

Costs are becoming a major price determinant; wage bills and overhead can't be pared to match any further price cuts.

Retail inventories have been brought fairly well into line.

•

Rubber is among the few major imported raw materials whose price still seems vulnerable. At 52¢ a lb., it's selling at about twice the price of our domestic synthetic product.

•

Prices rarely stay level, especially in times like these. So, if it's true

that the worst of the decline is behind us, what are the chances that the price line will turn up?

There is no immediate reason why it should. Retail business is pretty good, but it is not of a sort to set prices booming.

Consumers have learned that the earlier buying waves were ill-timed.

•

People undoubtedly have the money when the buying mood comes along. The Federal Reserve Board's fourth instalment of its consumer finances study says that more people saved money last year than in 1949. And this in spite of the July-August scare buying.

Twenty-nine percent increased liquid asset holdings against 26% the year before.

•

Textile mills were more active in August than generally appreciated. Military work helped. And they probably piled up some inventory.

Cotton consumption, at 767,282 bales in August, was only 30,000 bales under last year. Daily use was almost 38,000 bales against 32,000 in July (but it must be remembered that July was the vacation month).

Yarn making, judged by active spindles on Sept. 1, was above 1950.

•

Rayon yarn production in August is put at 117-million lb. by Rayon Organon. This was a shade above July, and compares with an average of 112-million lb. a month in the second quarter of this year.

But yarn producers shipped only 98.2-million lb., off from the second quarter's average of 109-million a month. And inventories shot up 69% to reach 42.2-million lb. That's the first sharp rise since 1949, when stocks went above 70-million.

•

Military buying bulks up in use of various yarns. The armed services take heavier fabrics than civilians. Thus, in a slack period like we have been through, military buying continues, and use of cotton, rayon, and wool drops off less than the actual decline in civilian demand.

•

The Army is right in the middle in a row between the big meat packers and the Office of Price Stabilization over beef (page 25).

A Quartermaster request for bids on 13-million lb. of boneless beef brought no offers from major packers. They declared cattle that will grade up to Army standards are 6% to 8% above ceilings.

They said their losses, on that basis, would be prohibitive.

Higher ceilings, granted earlier this week, were back of it all. The packers claimed that the rises on live cattle exceeded the ceiling boost at wholesale. That would tighten the pinch on slaughterers, not loosen it.

•

People in the metal trades are talking big things for aluminum when the squeeze eases—bigger perhaps than after World War II.

One point is that there will be aluminum while copper and other major nonferrous metals continue to be short. Manufacturers will substitute aluminum for the others, and it is unlikely to be displaced later.

Suggestions: aluminum for copper in auto radiators—and for steel in many other parts of motor cars.

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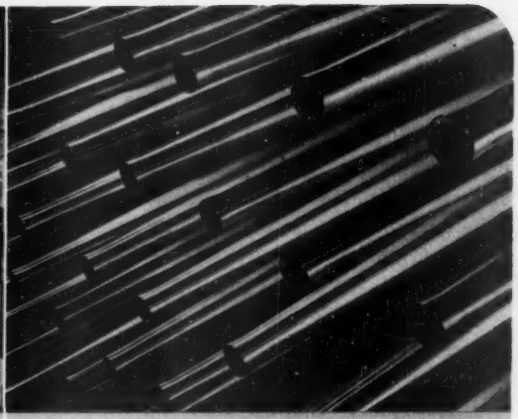
Gears or Guns

Gulf Periodic Service provides expert assistance in the selection of the most suitable cutting and quenching oils for all types of gears.



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These specialists provide practical assistance on problems involving lubricants, fuels, rust preventives, cutting oils, solvents, waxes, and special process oils. Their knowledge and experience can be applied profitably to your plant or operation.

Write today for your copy of the booklet "Gulf Periodic Consultation Service" which explains this cost-reducing tool. Or contact your nearest Gulf office.

FIFTY YEARS OF SERVICE
1901 GULF 1951
PETROLEUM AND ITS PRODUCTS

Must we depend on bravery?

Time and again we read of those who brave flames to save life and property from almost certain destruction.

These stories are heartwarming, for it takes courage of the highest order to walk through fire. Yet shouldn't we feel somewhat shamefaced too? . . . that we continue to count on such bravery, when we can and should *prevent* fire?

How much better to have fire automatically stopped *before* the fireman's life is risked, *before* the property is ruined. With Grinnell Automatic Sprinkler Systems fire can be checked at its source, wherever and whenever it may strike, with automatic certainty. And 70 years' experience prove Grinnell's reliability.

SEE THAT GRINNELL SPRINKLER HEADS ARE ON GUARD

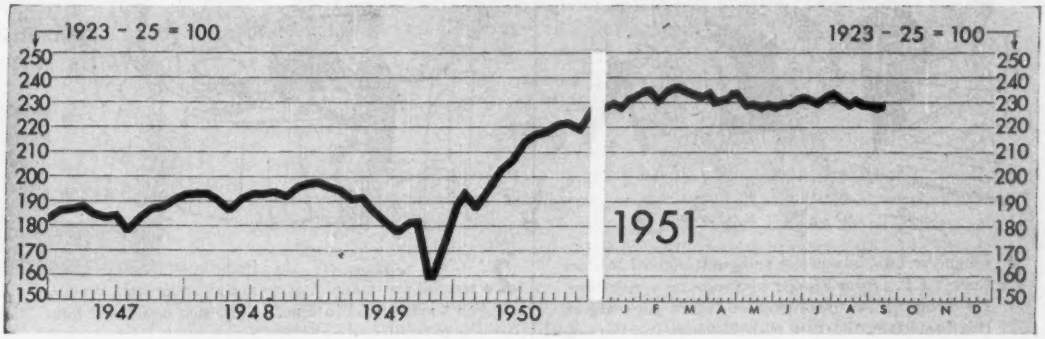
The time to act on Grinnell Protection is *now* — before fire burns you out, or cripples your business. For no indemnity check can replace scarce materials and equipment today, nor replace invaluable records. (And note:) if you have fire insurance, you're probably paying for Grinnell Protection anyway . . . *so why not have it!*

Grinnell Company, Inc., Providence, R. I.
Branch offices in principal cities.

GRINNELL

FIRE PROTECTION SYSTEMS

FIGURES OF THE WEEK



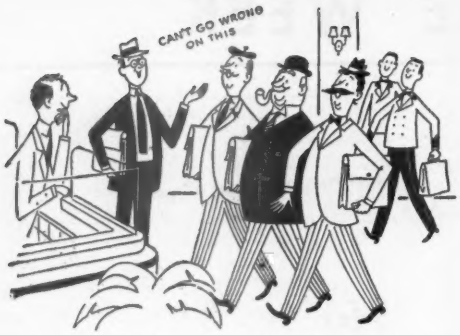
Business Week Index (above) . . . . .

	§ Latest Week	Preceding Week	Month Ago	Year Ago	1946 Average
Business Week Index (above)	*230.2	†229.7	232.7	221.3	173.1
PRODUCTION					
Steel ingot production (thousands of tons)	2,023	1,999	2,007	1,936	1,281
Production of automobiles and trucks	136,452	†103,224	129,661	185,421	62,880
Engineering const. awards (Eng. News-Rec. 4-week daily av. in thousands)	$36,498	$34,607	$37,014	$46,400	$17,083
Electric power output (millions of kilowatt-hours)	7,138	6,795	7,164	6,449	4,238
Crude oil and condensate production (daily av., thousands of bbls.)	6,282	6,278	6,241	5,938	4,751
Bituminous coal production (daily average, thousands of tons)	1,847	†1,766	1,696	2,035	1,745
TRADE					
Carloadings: manufactures, misc., and l.c.l. (daily av., thousands of cars)	78	78	75	81	82
Carloadings: all other (daily av., thousands of cars)	61	60	60	61	53
Department store sales (change from same week of preceding year)	–2%	†–2%	–8%	+8%	+30%
Business failures (Dun and Bradstreet, number)	164	116	158	165	217
PRICES					
Spot commodities, daily index (Moody's Dec. 31, 1931 = 100)	452.0	455.9	457.8	475.4	311.9
Industrial raw materials, daily index (U.S. BLS, Aug., 1939 = 100)	305.1	304.8	304.0	311.7	198.8
Domestic farm products, daily index (U.S. BLS, Aug., 1939 = 100)	339.1	343.5	353.3	355.4	274.7
Finished steel composite (Iron Age, lb.)	4.131¢	4.131¢	4.131¢	3.837¢	2.686¢
Scrap steel composite (Iron Age, ton)	$43.00	$43.00	$43.00	$40.75	$20.27
Copper (electrolytic, Connecticut Valley: lb.)	24.500¢	24.500¢	24.500¢	23.105¢	14.045¢
Wheat (No. 2, hard and dark hard winter, Kansas City, bu.)	$2.39	$2.36	$2.33	$2.20	$1.97
Cotton, daily price (middling, ten designated markets, lb.)	34.68¢	34.27¢	34.95¢	40.95¢	30.56¢
Wool tops (Boston, lb.)	$2.10	$2.25	$2.65	$3.10	$1.51
FINANCE					
90 stocks, price index (Standard & Poor's)	187.7	187.0	181.6	153.0	135.7
Medium grade corporate bond yield (Baa issues, Moody's)	3.45%	3.46%	3.50%	3.21%	3.05%
Prime commercial paper, 4-to-6 months, N. Y. City (prevailing rate)	2½–2¼%	2½–2¼%	2½–2⅜%	1¼–1⅜%	¾–1%
BANKING (Millions of dollars)					
Demand deposits adjusted, reporting member banks	$1,420	†50,589	49,909	49,269	††45,210
Total loans and investments, reporting member banks	70,725	†70,372	70,305	68,855	††71,147
Commercial and agricultural loans, reporting member banks	19,842	19,586	19,379	15,330	††9,221
U. S. gov't and guaranteed obligations held, reporting member banks	30,722	†30,768	30,949	34,840	††49,200
➡ Total federal reserve credit outstanding	24,384	24,006	24,360	19,665	23,883

MONTHLY FIGURES OF THE WEEK

		Latest Month	Preceding Month	Year Ago	1946 Average
Cost of Living (U. S. BLS, 1935-39 = 100) old basis	August	185.6	185.8	173.0	139.3
Bank debits (in millions)	August	$125,291	$124,422	$128,383	$87,502
Exports (in millions)	July	$1,186	$1,294	$779	$811
Imports (in millions)	July	$893	$929	$709	$412

➡ See page 100.
*Preliminary, week ended Sept. 15.
†Revised.
††Estimate (BW—Jul.12'47,p16).
§ Date for "Latest Week" on each series on request

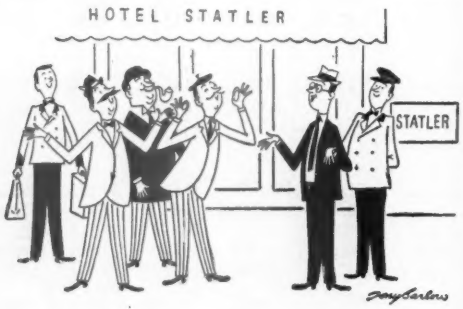


1. Linguistic Lou, interpreter and guide, agreed to steer three V.I.P.'s from Europe who were on a visit here. He brought them to the Statler. "Can't go wrong on this," said Lou, "it's tops with all Americans, I'm sure you'll like it, too!"

2. *"C'est magnifique!"* the Frenchman said. "These morsels are divine! I never hoped, so far from France, on such a meal to dine." "Ah, *mon ami,*" said Lou, "you're right—this Statler food is great. It's tasty and served piping hot—the best I ever ate."

3. *"Wie geht's* and did you sleep as well as I?" the German said. "Sure did," smiled Lou, "and how I hate to leave this Statler bed. Eight hundred thirty-seven springs in Statler mattress are . . . the reason why we *schlaft so gut.*" His friend said, *"Wunderbar."*

4. "The *vino* once was stamped in tubs, but this tub's not for wine. So I will sit and soak and sing. *Amico,* this is fine!" "The water's always hot," said Lou, "the soap is stacked in rows, and note the piles of towels so white —as white as alpine snows."



5. The business district, shops, and shows they found convenient, too. In their excitement English failed, and so they turned to Lou. He listened, then interpreted the thought they wished expressed . . . *the Hotel Statler makes you feel you really are a guest!*

STATLER HOTELS: ***NEW YORK*** • ***BOSTON*** • ***BUFFALO*** • ***DETROIT***
CLEVELAND • ***ST. LOUIS*** • ***WASHINGTON***
STATLER-OPERATED: ***HOTEL WILLIAM PENN*** • ***PITTSBURGH***

*

ANOTHER GREAT NEW STATLER • ***LOS ANGELES***
(NOW UNDER CONSTRUCTION • READY FOR OCCUPANCY 1952)

WASHINGTON OUTLOOK

WASHINGTON BUREAU
SEPT. 22, 1951

A BUSINESS WEEK SERVICE

A new timetable for industrial expansion will be the practical result of reshuffling structural steel allotments next year. You'll get official clues in Boss Wilson's next quarterly report, due in a couple of weeks. Meanwhile, enough is known of the Defense Production Administration's allotment plans for the first quarter of 1952 to indicate where some of the switches will come.

•

Steel expansion projects will get a break. They were held down when fourth-quarter structural steel was passed out. In fact, the steel makers got only half of what they wanted (page 22). DPA will be more generous with them in early 1952 to avoid delay in getting new steel-making facilities into production.

But it means construction delays for some other lines. Structural is so scarce that higher allotments for the steel industry will force cuts elsewhere. Here are some spots where DPA thinks it can put on the squeeze:

•

Electric powerplants: DPA may delay some new starts, especially in view of the fact that copper to equip the plants may not be available by the time it's needed under present construction schedules.

Railroad equipment: The 10,000-per-month freight car goal may be pushed further into the future, and the roads may be asked to go slower in switching from steam to diesels.

Natural gas pipelines: New lines will be held up. Steel saved will be diverted to the oil industry.

Nondefense construction: A real hold-down is in the making here.

Defense construction: The military is being asked to reexamine its projects and defer all but the most urgent.

•

It's an effort to gear expansion to needs—a "first things first" program. The mobilizers want to prevent scarce structural steel from going into a bearing plant, for example, if the plant would be completed months before its bearings are required by defense. Moreover, it's a policy that will be extended to serve as a guide on other aides—loans or quick amortization.

•

Congress won't make its Oct. 6 adjournment deadline. The prospect now is that the session will run to mid-October, and maybe even into November.

Nothing new has been added to the schedule. It's simply taking longer than leaders expected to wind up the regular appropriation bills (which should have been voted by June 30), clear the new foreign aid program, and raise taxes by about $7-billion.

•

Pay ceilings for salaried workers gradually are being spelled out by the Salary Stabilization Board (page 24). They apply to all personnel exempt from the wage-hour law, such as executives, professionals, etc.

Merit and length-of-service raises are O.K., provided the total added to your salary bill doesn't exceed 6% yearly.

Individual raises over 6% may be paid. But these may not exceed 10% or, if you use a range for the job, the top bracket of the range.

•

Eisenhower-for-President backers are keeping at it, still with no word,

WASHINGTON BUREAU SEPT. 22, 1951

at least publicly, from the general. But one key Republican, long in politics, this week told reporters he's satisfied Ike will run, adding: "You know me. I wouldn't back a horse if I didn't think he was in the race and will win."

•

The issue of government in business, as a raw materials producer, may have to be fought out again in Congress early next year.

Another round of aluminum expansion, on top of the 80% undertaken since Korea, is involved. Current figuring is that a 15% to 20% boost over capacity in existence and under way will be needed for the bigger Air Force now being planned. Private producers say they can't swing it, unless the government underwrites the risk. So the government is leaning toward building its own plants. But it must get an O.K. from Congress first.

•

Washington thinks the fall business upturn lacks expected steam. Truman's analysts, the Council of Economic Advisers, have reported to him that the pickup looks more like a normal fall improvement than a new inflation wave.

What the statistics show is that August and early September gains in retail sales were moderate—less than 2% above the usual seasonal.

The forecast for fall is for a high level of business activity—but without any big boom in sales, barring new war scares.

•

Government spending plans, long pull, are coming into better focus. They are tentative, subject to change as war threats blow hot or cold. Still, they are useful guideposts to have in mind as you make your plans, business and personal, for the next several years.

The total this year and next (fiscal 1952 and 1953) now is estimated at $150-billion—$70-billion this year, $80-billion next year.

The following three years are figured at around $195-billion, total. That's $40-billion yearly to maintain defense and $25-billion nondefense, with no allowance for more air power and foreign aid.

•

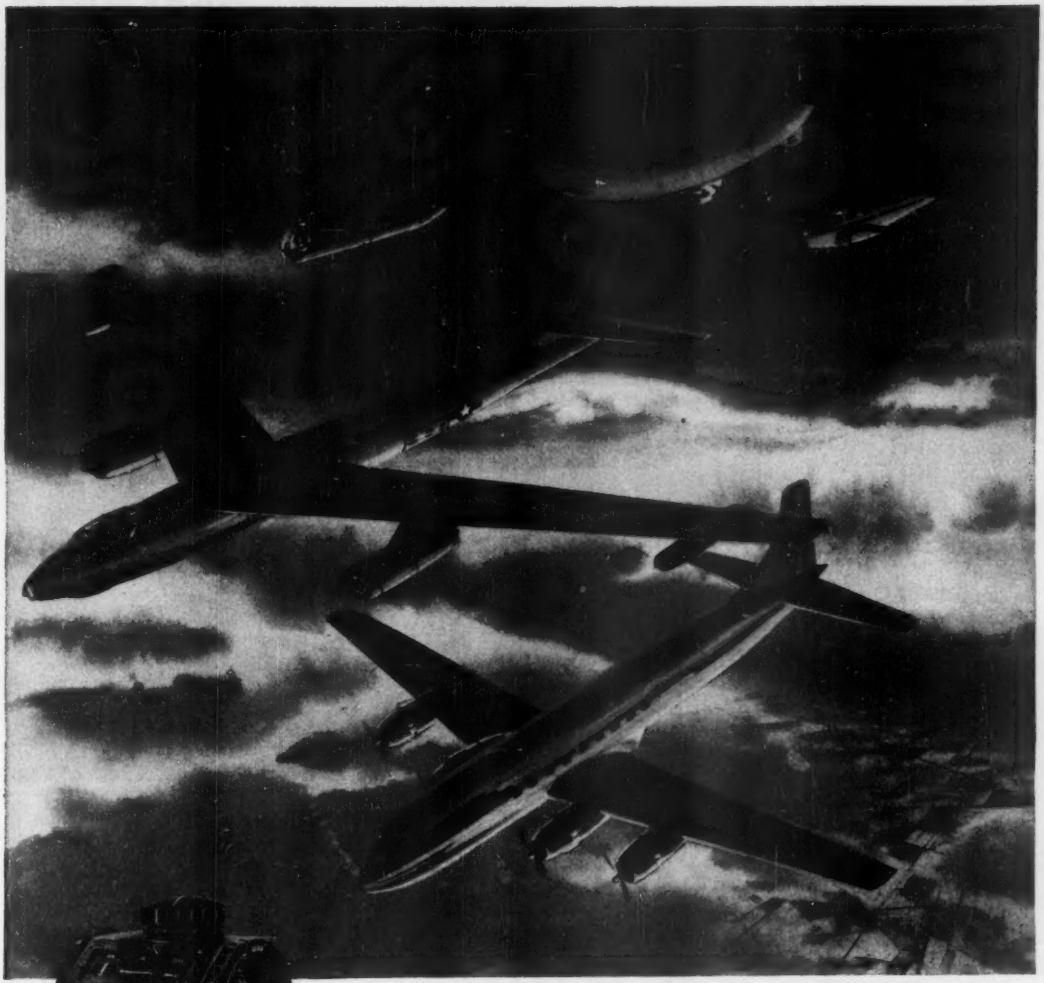
The five-year total, $345-billion, equals World War II spending. The drain on the economy, however, will be less. One reason is that the economy is bigger now, and still growing. The other is that today's dollar buys less. But no matter how it's sliced, it's a tremendous pie.

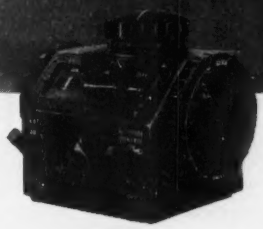
Sen. McMahon's plan to economize with atom weapons is for the more distant future. In the beginning, rising atomic power will only supplement more conventional arms, not replace them. So big spending will go on.

•

That's the backdrop for the Administration's inflation fears. Buying power in the hands of the public, fed by spending, is heading steadily upward. It probably will be three years—maybe four or five—before industry expands enough to meet the big government demand and once again takes care of all its other customers. Meantime, inflation will threaten.

How high the price level will go is anybody's guess at this stage. The consensus among officials is that the rise will be very substantial. One Truman aide, for example, thinks a Maryland real estate venture he's in on will double, perhaps triple, his dollars in the next five years. The point is that even insiders don't expect the stabilization policy to work.





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OF THE AIRWAYS

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► For widely diversified aircraft the Sperry Gyropilot* is providing consistently smooth, precise automatic flight control under all flight conditions and is making possible automatic approaches through low ceilings in rough air.

► The flexibility in applying this Gyropilot to all types of aircraft is the result of 10 years' experience in combining precise reference systems with electronic rate circuit techniques and high response servos which accommodate all control situations from lighter-than-air ships to guided missiles.

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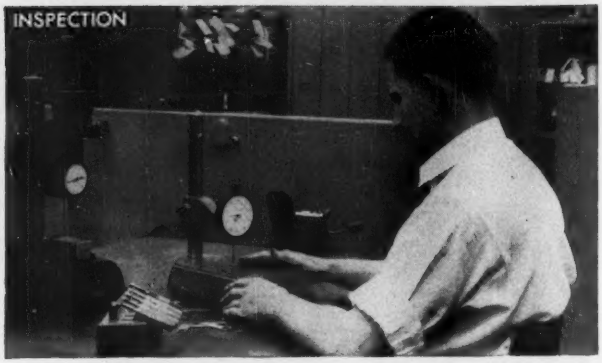
The costliest place to catch mistakes is here→

Best-lighted area in most plants today is the inspection table. But good inspection lighting can only help catch errors *after* they occur—and time and materials have already been wasted.



The cheapest place is here→

By giving your production workers as good light as you give your inspectors, you prevent mistakes from happening. There are fewer errors, less fatigue, fewer accidents.

Photos courtesy Metals and Controls Corp., Attleboro, Mass.

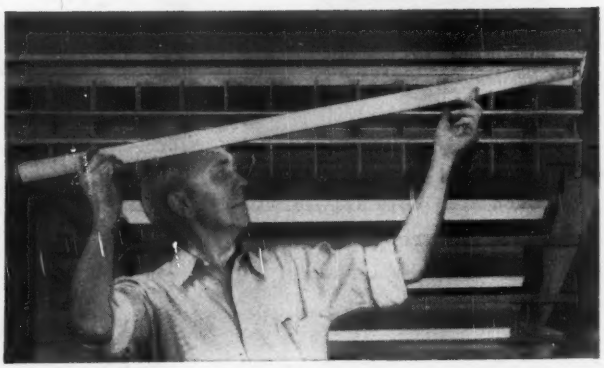
THE BEST WAY IS WITH "5-WAY IMPROVED" G-E FLUORESCENT LAMPS IN YOUR FIXTURES!

AS a result of recent improvements made by General Electric lamp research scientists, you now get:

(1) Increased efficiency (improved phosphor)
(2) Better uniformity (improved processes)
(3) Less end blackening (purer materials, more accurate controls)
(4) Longer life (new materials and methods)
(5) Better color rendition (new Deluxe White lamps show colors as they really are)

Workers see better, work better under cool fluorescent light with less glare, fewer shadows. Newest form of fluorescent is G-E slimline—up to 8′ long, single pin base, instant starting. Call your General Electric lamp supplier.

FREE BOOKLET! How to light up for better production. For your copy of "Planned Lighting for Industry," write General Electric, Department 166-BW-9, Nela Park, Cleveland 12, Ohio.



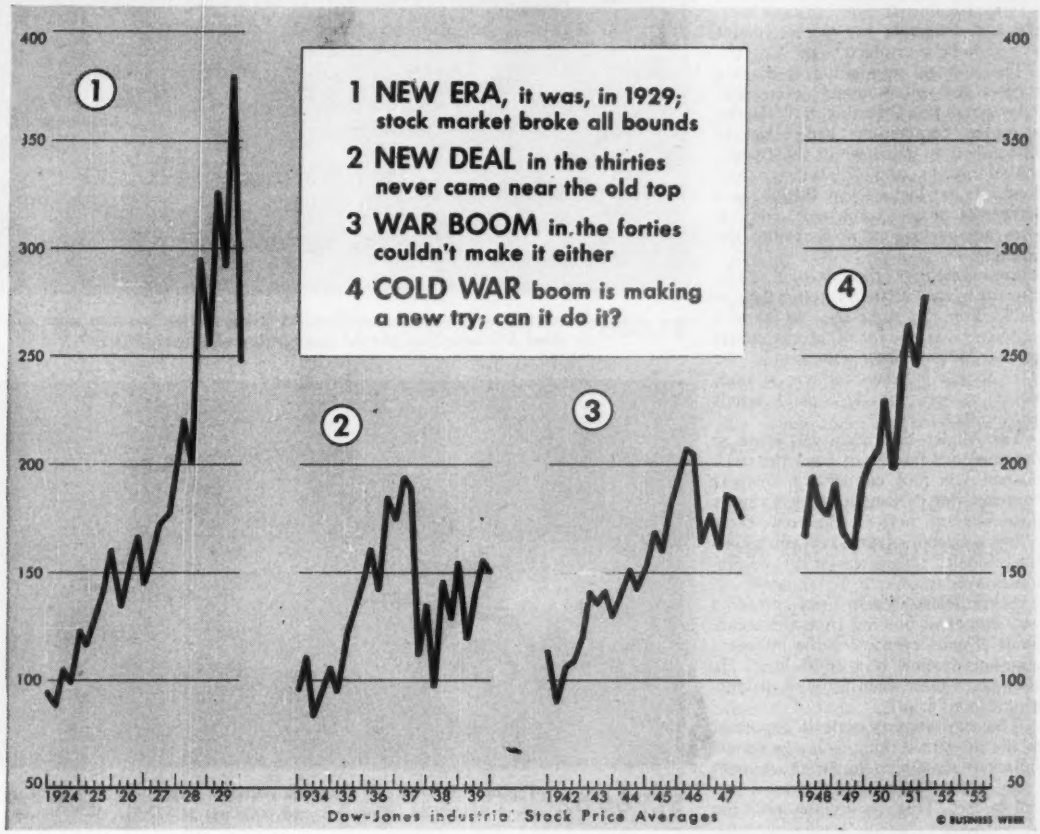
You can put your confidence in

GENERAL ELECTRIC

BUSINESS WEEK

NUMBER 1151

SEPTEMBER 22, 1951


1 NEW ERA, it was, in 1929; stock market broke all bounds
2 NEW DEAL in the thirties never came near the old top
3 WAR BOOM in the forties couldn't make it either
4 COLD WAR boom is making a new try; can it do it?
400
350
300
250
200
150
100
50
1924 '25 '26 '27 '28 '29
1934 '35 '36 '37 '38 '39
1942 '43 '44 '45 '46 '47
1948 '49 '50 '51 '52 '53
Dow-Jones industrial Stock Price Averages
© BUSINESS WEEK

Stocks: 1929 Look With Differences

After 21 years, the stock market is getting a look of 1929 about it. The averages are up far enough really to raise the question: Will the ancient 1929 peak finally be equaled?

The resemblance to 1929 just about stops there. It's a very different market today. Different people are buying different things and for different reasons.

But for most businessmen it isn't the lovely glimmer of another 1929 that matters right now. It's the fact of a market active enough so that:

Equity financing becomes more attractive. No longer does the sale of stock look so much like a dilution of each present stockholder's equity. And each share sold, by the same token, raises more money than it would have earlier.

Public purchasing of goods is bolstered. A stockholder may not actually take his paper profit. But the mere fact that he has a profit—and a growing one—loosens his spending attitudes. (And that bodes well for Christmas.)

• **Don't Argue**—It's quite true that a lot of things about this stock market are not according to Hoyle. Yet it keeps right on going up.

Thus anybody who is not aboard—be he a bear or just a sold-out bull—might well remind himself of the old Wall Street adage: There's no use arguing with the ticker tape.

There simply have been more buyers than sellers. But note this: Institutional buyers—investment trusts and pension funds and, to a lesser extent, trust companies and life insurers—have outweighed individual sellers for a long while. These institutions know of no better way of making a good showing than keeping their money working. Thus, as they take in new funds, added demand is created for sound shares.

• **Investment Trusts**—The very nature of this buying is one of the big differences between the current bull market and 1929's. To be sure, investment trusts were popping up in the twenties. But they were by no means developed to the extent they are today.

You didn't need to buy investment guidance in 1929—or at least you didn't think you had to until late that October. You hocked the silver, sought a tip from the nearest bootblack, bought 100 shares of XYZ Corp. on five-point margin, and waited for the cleanup.

Today, you don't hear many tips. The Securities & Exchange Commission frowns on them. And you don't

buy on a shoestring (and pyramid as soon as you have a few points profit). The Federal Reserve sets margin requirements and sets them high (for the good of you and of the country).

Judged against the yardsticks of earnings and dividends, the market cannot be said to be overvalued.

The average corporation is making a good deal more money, even after today's high taxes, than in 1929. In the aggregate, corporations had a net of $8.4-billion in 1929 while the current annual rate is over $20-billion. And dividends are higher even though, as a percentage of post-tax income, corporations are plowing more back into the business.

Approached on the basis of yields, too, stocks look relatively better than in 1929. You can make over 6½% on a representative group of stocks today against 2¾% on high-grade bonds. In 1929 it was just another way around; stocks earned you 3½% and bonds nearly 5%.

• **Tax Angles**—But when you come to the investor's take-home from the stock market, you find one of the sharpest contrasts—for, though he gets larger dividends and better yields now, there is his personal income tax bill. Relatively small 22 years ago, it can be prohibitive today.

Nevertheless, stocks may prove a very attractive holding from the standpoint of gain, even when the investor's after-tax income is a mild lure: He isn't taxed more than 25% on a long-term capital gain.

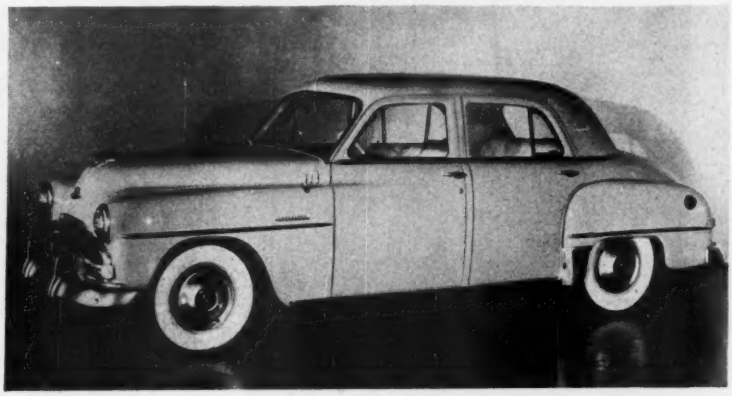
This capital-gains angle is important to the investor seeking to hedge against inflation—something he barely thought of in 1929. Stocks offer at least a partial hedge. They presumably will rise as currency's buying power declines. And, through the long-term capital gain, some of the purchasing power of savings may be maintained.

• **Similarity**—Meanwhile, in at least one particular, this bull market is like all others. It's a selective affair.

Not so long ago, the bulls made merry in the TV shares. All along, chemicals have been popular for their growth prospects. The oils have drawn a following for high earnings and strategic importance. That by no means names all the groups that have had a good following. Nor does it tell the better-than-average performances of individual stocks within the groups.

For the statisticians have been busy sorting out the best-looking stocks. And one criterion, particularly these days, is the breadth of a company's excess profits tax base. You have to know that before you can compute earnings, guess at dividends, and figure how much you'll have left after taxes are paid. That's how you can tell if stocks are "high."

$1,640 **New approximate price of this Chevrolet Styline Deluxe four-door sedan will be about $70 more than the old factory-delivered list—$1,570.04.**



$1,786.62 **Tag on this Plymouth Cambrook four-door sedan will be marked up about $115. Old factory-delivered price was $1,672.51.**

Bigger Price Tags, Smaller

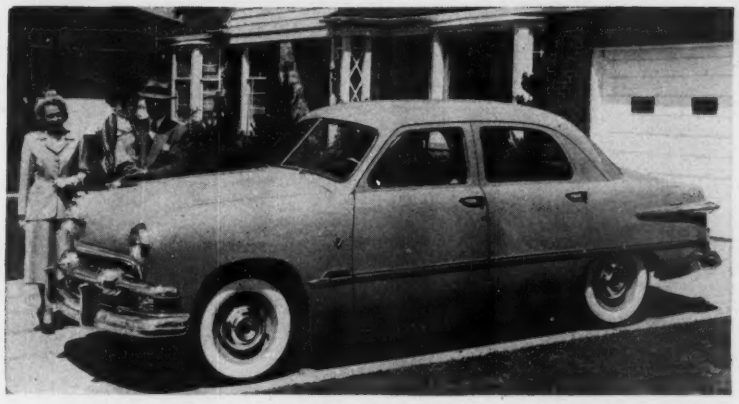
Mobilization has turned the economics of the automobile industry inside out. At a time when sales are sagging, and a model run is drawing to its close, manufacturers are raising prices. And they're stalling on new models—instead of starting the usual fall drum-beating. Going into October, some companies aren't even sure what they'll do with 1952 cars.

The answer lies mainly in what the defense program is doing to autodom.

• **Cutbacks**—Materials cutbacks are now definitely going to take a sizable whack out of fourth-quarter production. That's what's behind the price rise. With the limited number of cars they'll be turning out, manufacturers feel they'll be able to sell all they have—even at the higher prices.

The slowness on new models is also partly a question of materials—though here it's the finished ones, the components. Auto makers are already committed on components for the rest of the 1951 run. Delivery dates on the parts, though, are a problem; some components may come in slowly, which means the run will have to be stretched out. Added to this, tools for the 1952 models are still very much up in the air. Practically no company knows for sure when they will arrive. Most manufacturers have no choice but to put off the start of '52 runs.

• **Sales**—At the other end of the automotive operations chain, sales are good today, but not too good. They began to fall off in early summer, counter to the normal pattern. July deliveries of new cars—406,333—were reported by R. L. Polk & Co. as the lowest for any month since January, 1950. August will likely reflect still further declines, de-



$1,825 Ford will add about $75 onto the price of this Custom V-8 four-door sedan. Rouge-delivered tag has been $1,748.29.

$1,795 Studebaker's list will probably go up about $20 on this Champion Regal four-door sedan. It's been delivering at South Bend for $1,775.07.

Output for Auto Makers

spite a midmonth pickup. Wayne County (Detroit) new car sales, usually watched as a bellwether, totaled only 13,173 in August, compared with 21,071 a year ago.

Nevertheless, deliveries of 400,000 cars a month or so is definitely big business, bigger than ever before except for part of the boom postwar period.

• **Production**—The net result is that, even with the more-than-seasonal sag in sales, field stocks are dwindling away. The reason is simple: the shakiness of production.

First it was steel, allocated so as to cut down third- and fourth-quarter production. Present allocations would permit output of some 1.1-million cars in the fourth quarter. But now copper is a stumbler. The western strikes are sure to show their effect on parts—radiators, wiring harness, and the like—before long. There already is talk among auto makers of switching to aluminum radiators.

• **Prices**—The production cutbacks, past and just ahead, are the big reason the car makers have been hitting Washington with dogged demands for price relief—relief that they got in the recent OPS order. Two minutes after the opening of OPS office following the order, Chrysler came in with requests for raises averaging 6.5%. Ford followed a few hours later, seeking average advances of 4.31% on Ford, 2.83% on Mercury, 3.87% on Lincoln, and 2.5% on Lincoln Continental. GM trailed in after, asking for its boosts—ranging from 4.02% on Pontiac to 5.20% on Buick.

Costs have gone up for the car makers, true enough. Ford's costs, company brass said a short while ago, have risen upwards of 5% since January, 1950, with no permissible price increase except a small one last March. Big volume, however, has made up for much of those advances. Now smaller volume ahead just about wipes out management's chance to keep even without a price hike.

Chrysler's experience is a case in point. In 1950 its profit on sales was 5.84%; during the first half of 1951 it shrank to 2.75%. With volume lowered after the first half, Chrysler's black ink chances might have been slim without a raise in prices.

• **New Models**—As far as new models go, 1952 for most producers will be a face-lift year, little more. A few engines will come out, notably at Lincoln and Mercury (and a new six-cylinder job at Ford), and perhaps at Dodge and DeSoto. But not much is expected beyond that—even though the car makers might like to start building complete revisions and thereby gain ground for going back to OPS with further price applications.

First Power Priority Set Up in Northwest

Business got a preview this week of what happens wherever defense requirements put too much strain on power supply.

Defense Electric Power Administration stepped into the Pacific Northwest power famine (BW—Sep.15'51,p28) with its first power conservation order. It hung a super-priority tag on current for atomic energy plants, the Spokane magnesium plant, and Pennsylvania Salt Mfg. Co.'s plant making chlorine, chlorates, and caustic soda.

• **Industry Hit**—These users must be supplied at the expense of all others, said DEPA. It means power supply is shaky for wood and lumber companies, pulp and paper mills, and plants that produce half the nation's aluminum.

Industry must bear the brunt of power curtailment because:

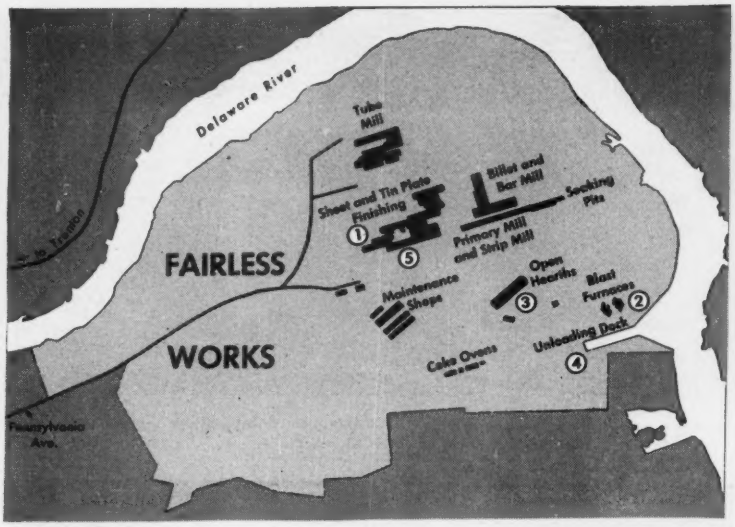
- It's the biggest user of power.
- There's no effective way of controlling domestic use anyhow.

• **Control Plan**—Unless rains quickly increase the Columbia River's flow, deep cuts will come in early October. DEPA may decide then to limit deliveries of power to large industries to 80% or 90% of consumption in some 1950-51 base period. Power would also be cut further for industries that can generate part of their own electricity. And a "brown-out" provision would specify various nonessential uses that would be forbidden.

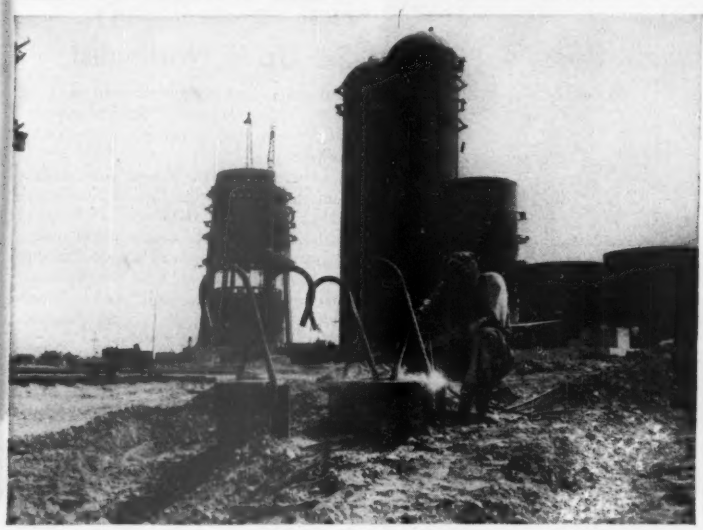
Domestic consumers may be asked to cooperate voluntarily in power conservation.

STEEL EXPANSION

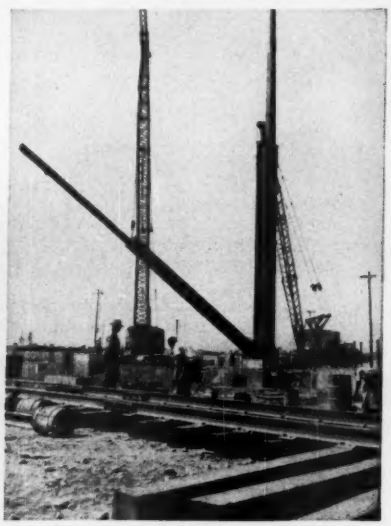
U. S. Steel's new plant at Morrisville, Penn., biggest single piece of the nation's expansion program is right on schedule



THE PLAN This will be the finished layout. Progress pictures, right and below, are keyed to the numbers given to the units on this plant map.



2 The No. 1 blast furnace is mushrooming. Five of the six stoves have now been topped, and brickwork is rising in three. No. 2 furnace has just been started.



3 The open-hearth shop is still not much more than a cleared site.

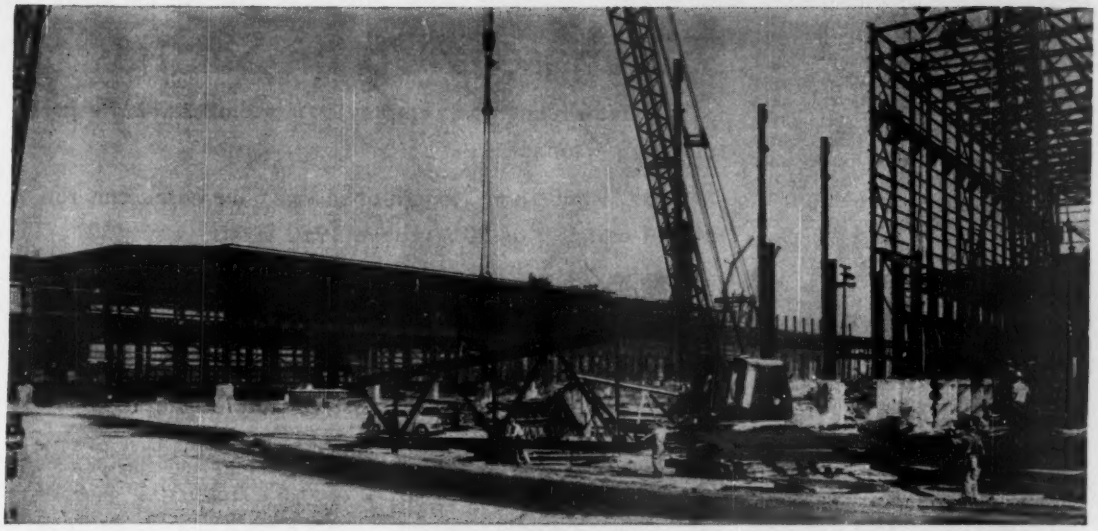
Steel: Capacity Outstrips Supply of

The steel industry is still going like a house afire with its mammoth expansion program. Witness the biggest venture of them all—the new Fairless Works of Big Steel at Morrisville, Pa. (pictures). It's right on schedule at this point.

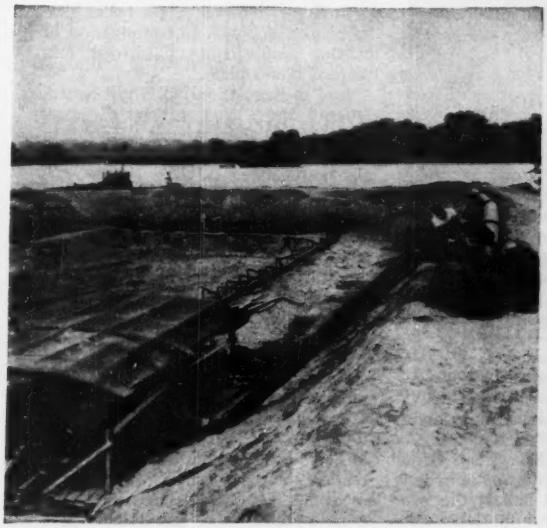
That's why it was such a shock to steelmakers to have their knuckles rapped by Charles E. Wilson, director of defense mobilization. Last week he told a meeting of scrap metal experts that the steel industry "has just got to find ways to produce more." Specifically, he asked for more steel production in the first two quarters of 1952 and more steel expansion.

• **Two Obstacles**—Wilson's requests are going to be hard to fulfill for two reasons:

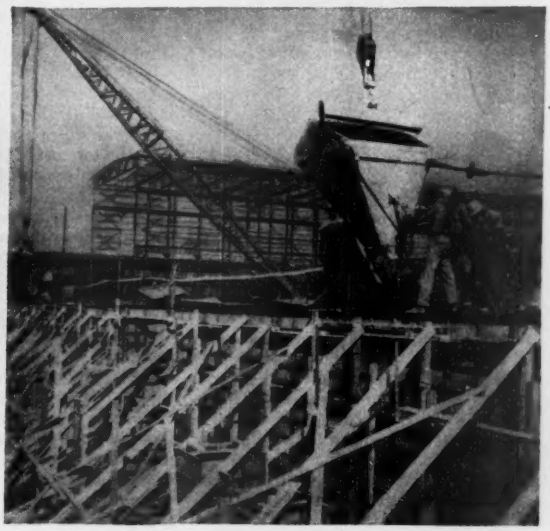
• Nobody in the steel business feels that greater production can be guaranteed this winter. The raw materials situation is the limiting factor. The scrap supply is noticeably tight even now, and scrap collections normally fall off during the winter months. Iron ore is being stacked up as fast as the ore boats can bring the stuff down the lakes. But again, no one knows



1 The cold sheet finishing unit will be ready by yearend. Steel erection is just about completed, and it won't take long to enclose the buildings. Until the rest of the plant is producing, this mill will be fed by partly finished steel from Pittsburgh.



4 Walled off from Delaware River, the unloading dock is dug out. Ships will bring iron ore from South America.



5 Foundations are being poured for the tin plate mill. Framework of sheet mill rises in background.

Raw Materials

how late the weather will permit lake movements.

• A slowdown of the expansion program was foreshadowed several weeks ago when NPA allocated less structural steel for the fourth quarter. In fact, NPA cut the steel industry's allotment by almost exactly one-half (BW–Sep.8'51,p144). The only way the program can be stepped up is to allocate more structural steel, not less, at this time. Washington officials had some second thoughts on this point. They are now considering an increase in allocations for steel expansion in the first quarter of 1952 (page 15).

• **The Record**–Steel men thought they had been doing a bang-up job for the defense program. Indeed, they had been told so by government officials. And the records back them up. The industry's rated capacity this year is 104.2-million tons. The year's output will be about 106-million tons, 10-million tons more than in 1950. This week the American Iron & Steel Institute reported that the mills were scheduled to run at 101.2% of capacity.

Production could be even higher if it weren't for the downtime needed to repair equipment. And there are other bugs to plague the steel men.

• **Scrap Famine**–Scarcity of scrap is one big reason why production is not so good as it might be. Here are two examples:

• Youngstown Sheet & Tube Co. recently blew out one of its blast fur-

naces at the Campbell works for relining. It meant that it hadn't enough hot metal for both its Bessemer and its open hearths. Youngstown could have charged more scrap into its open hearths to overcome this, but there wasn't enough scrap available. So the Bessemer was out of production all the time the blast furnace was being repaired.

• Crucible Steel relighted a blast furnace this week that had been down since July 1 for relining. An open-hearth furnace that had been idle since early June, partly because of the scrap shortage, also was put back into operation to draw on the blast furnace's iron supply.

Government and industry officials are both pounding hard to get more steam into the scrap collection drive. They estimate that scrap requirements would be upwards of 36-million tons in 1951, against 33-million tons last year. Scrap inventories of steel mills and ferrous foundries fell about 30% in the first half of this year. Supplies at some steel plants in June declined to only a few days' reserves. There hasn't been much improvement since.

Steel men wonder how they can get enough scrap to feed expanded capacity when they're already losing the race to keep existing capacity going. They can only hope for a miracle.

• **Undismayed**—Despite the concern about raw materials to feed existing furnaces, steelmakers have no intention of pulling back on planned expansion. Under pressure of defense needs, they are bringing facilities into operation piecemeal, rather than waiting for a whole program to be completed.

That will be the case with the new Fairless Works. This plant will have an annual capacity of 1.8-million tons of steel ingots, 1.2-million tons of pig iron, 289,000 tons of cold-rolled sheets, 235,000 tons of hot-rolled sheets, 285,000 tons of bar products, and 179,000 tons of tin mill products. In addition, National Tube Co., the pipe-making subsidiary of U. S. Steel, will be able to produce 281,000 tons of pipe annually.

• **Morrisville Progress**—This week the whole layout at Morrisville is 22% complete. But the cold finishing capacity will be ready to go by the end of this year. Big Steel plans to bring in partly finished steel from the Pittsburgh district to push through the new sheet mill.

The hot strip mill may be ready in the first quarter of 1952, almost certainly by next summer. So will the open hearths and blast furnaces. The No. 1 blast furnace is well along right now. Five of the six stoves are topped, and brick is being laid in three of them. Construction engineers estimate the furnace will be about 80% complete by yearend.

SSB Loosens Up on Salaries

● **New ruling gives employers more latitude in raising salaried personnel.**

● **"Merit" and "length-of-service" increases can run salaries as much as 20% above 1950 levels.**

● **Existing compensation-adjustment and bonus programs can be continued.**

● **Companies that pay cost-of-living bonuses to wage workers can extend same increase to salaried workers.**

It looked for a while as if economic stabilization policies were going to be soft for wage earners and tough for salaried employees. Those fears were largely dissipated this week.

A new regulation issued by the Salary Stabilization Board indicates that Eric Johnston will sanction no double standard such as operated during World War II for men in overalls and men in white collars.

Under SSB's rules, salaries will move in tandem with wages, and most companies will be able to continue existing compensation-adjustment programs. As a matter of fact, many employers are going to have more latitude for raising salaries than for granting wage increases—for the present anyway.

• **Cause**—They'll have more latitude because of the widespread business practice of making most salary boosts effective in the payroll period beginning Jan. 1. Wages, on the other hand, are usually changed on the date of the expiration of labor contracts.

The familiar pattern will be something like this: During 1949 the XYZ Corp. did some hard bargaining with its union to minimize wage increases in its new contract. Chances are better than even that the negotiations took place during the first half of the year, the period in which most labor contracts expire (BW—Sept.8'51,p36). The wage base for subsequent government-regulated increases was set at that time.

But the XYZ Corp. did not set its salary base until much later, to be effective on the following Jan. 1. In view of then-prevailing compensation trends, it is almost certain that XYZ was more liberal with its salary allowances—to take effect in 1950—than with wage allowances determined much earlier and, probably, effective retroactively.

• **Effect**—Thus the base date of Jan. 1, 1950, which is now applied to both wage and salary changes for the purpose of calculating their permissible rise, has this effect:

The average salaried employee in the typical company has a more favorable base to which percentile pay increases may be added than his wage-earning opposite number.

Here is how it works: In Regulation No. 1, SSB permits salaries to go 10% above their Jan. 1, 1950, base without a "by your leave" from Washington.

In Regulation No. 2, the board gave its blanket approval to continuation of existing profit-sharing, Christmas, and yearend bonus plans.

And in Regulation No. 3 just issued, "merit" and "length-of-service" salary increases 6% above what is allowable in Regulation No. 1 are made automatically permissible.

Hence, every employer has a minimum ceiling of 16% above his Jan. 1, 1950, salary schedule for adjusting the pay of all of his staff not covered by the wage-hour law and thus classified as "salaried personnel."

• **Executives Can Benefit**—In a good many cases, the ceiling will be above 16%. Subsidiary points in SSB's regulations take account of special situations such as the fairly common one where a company has no fixed limit on what it will pay an executive job holder. Where, for example, a plant superintendent, an office manager, or a department head is compensated in a fixed range running from, say, $10,000-$15,000, the 16%-over-Jan. 1, 1950, formula will apply. But if there is no such fixed range, and the determination of salary is on an individual, irregular basis, SSB will permit an additional 4%; a theoretical employee may, consequently, net pay 20% more than he was making at the beginning of 1950.

• **C-of-L Dividends**—Another chink in the 16% ceiling is open for salaried employees of companies that pay wage earners on a cost-of-living basis and have established the practice of automatically raising salaries when wage rates go up. Administrative, professional, and executive staffs of companies that have labor contracts of what has come to be known as the "General

Motors type" get special dividends as long as the c-of-l continues to rise.

• **16% Ceiling**—All these rules apply only to the same man in the same job—just like wage control. If Jones, who has been production manager, is promoted to a vice-presidency, he can have his salary doubled, tripled, or quadrupled without anyone in Washington being interested except the tax-gatherers—just so the doubling, tripling, or quadrupling doesn't carry Jones more than 16% beyond what the company usually pays its vice-presidents.

• **Loose Ends**—In only one respect does what the salary man can do for himself lag behind what the wage earner can do. And even that will soon be brought into line. The Wage Stabilization Board has recently taken account of the rise in the cost of living since January of this year in permitting what now amounts to a 2% addendum to wages that were at their ceiling. It is taken for granted that, as the cost of living mounts further, this 2% will be expanded to keep pace.

Thus far, there is no equivalent 1951 c-of-l addendum for salaries. But you can expect it soon. The economic stabilizers are determined to treat everyone alike, and thus far there has been no political interference with that policy.

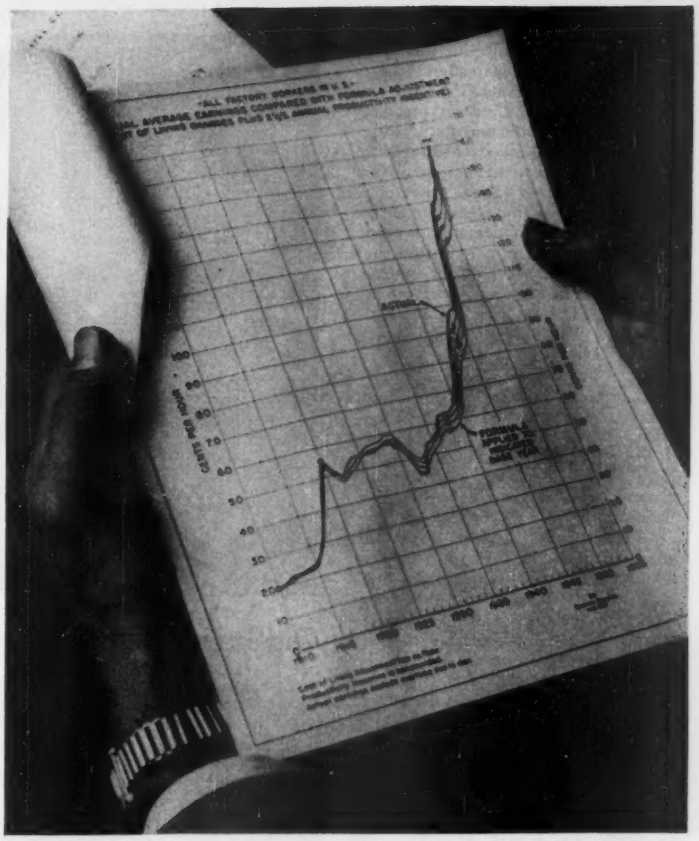
Meat Packers Still Have A Beef About Beef

Meat packers moved this week from one beef trouble to another. At the end of the scrimmage they stood just where they'd been before OPS tried to take a little pressure off them.

On Monday, OPS announced a 1¢-a-lb. rise in the wholesale price ceiling. This was a relief measure, in answer to complaints that packers were being squeezed by falling prices by byproducts such as tallow and hides. It didn't work. The same day OPS tilted the ceiling—and two days before the increase was effective—the price of live cattle in the Chicago market went up by something like 1¢ to 2¢ a lb.

• **Shutdowns**—That crushed the hopes of small packers, who had been shutting down their plants rather than work under the old ceilings. They had looked askance at the OPS increase, to begin with. One Cleveland packer said he'd still be losing at least $4 on each animal. And that was before the live cattle price rise.

The upward trend in live cattle prices above ceilings had another effect, too. Wilson & Co., third-largest packer in the country, decided to suspend slaughtering at Chicago for one week in each four or five weeks. The purpose: to keep each month's cattle purchases within over-all ceilings for the period.



GENERAL MOTORS' CHART shows how factory wages under cost-of-living formula would have been lower than actual wages if based on 1910, 1920, 1930, or 1940 level.

Where'll Escalator Take Pay?

The chart pictured above is a piece of ammunition. It's a General Motors product, engineered as the very latest missile in a war of words over escalator wage clauses—are they inflationary, or are they stabilizing? This battle was revivified when the government tied wage rates to living costs (BW—Aug. 11'51,p19).

On one side in this war are government wage stabilizers—and General Motors. On the other side is a host of big industrial employers and economic pundits.

• **GM's Stand**—The paradox is this: GM is an irreproachably successful industrial giant, yet it is at odds with its fellow industries, even to the point of throwing a brickbat at time-honored practices.

GM has been a satisfied user of the escalator clause since 1948. Its statisticians produced the chart as proof that wage movements since 1910 would have been lower under a cost-of-living formula than they actually were under open bargaining.

This analysis comes on the heels of a warm defense of escalator clauses by Charles E. Wilson—the GM president, not the chief mobilizer. In this statement, published by the Wall Street Journal as a letter, Wilson argued that GM cost-of-living increases to employees last year were less inflationary than the extra dividend GM distributed.

The extra dividend, Wilson pointed out, put an additional $176-million in the hands of stockholders, while the escalator wage increase accounted for $40-million in added purchasing power.

• **GM's Critics**—His counterblow followed several blasts by business columnists against the Wage Stabilization Board's approval of voluntary c-of-l increases via escalator clauses in contracts.

Henry Hazlitt, in Newsweek, had called this "a recklessly inflationary decision." He spoke of the "disastrous consequences of parallel decisions in

Austria and Germany in the '20s." Hazlitt reminded his readers that he had blasted the original GM settlement in 1948 that established the precedent of cost-of-living adjustments.

". . . All the so-called 'catch-up' wage formulas . . . force an increase in production costs of goods that have hitherto not had the average price rise; hence they lead to demands for price relief. They force firms to borrow more money at the banks to meet increased payrolls. This increases the money-and-credit supply. Increased money in the hands of workers bids for a reduced volume of civilian goods. The increases thus forced in the price of goods become in turn the cause under the escalator provision for further increases in wages—and so ad infinitum."

Mark Sullivan, in the New York Herald Tribune, had called the escalator clause "an automatic mechanism of inflation."

"Theoretically," he said, "wages also go down with the cost of living, but who that has ever ridden in a literal escalator has seen it go downward? True, an escalator clause in a contract between General Motors and a union of its workers once resulted in a slight reduction of wages. But the overwhelming probability is that the effect . . . will be upward—upward in wages and upward in cost of living."

• **Orderly Way**—In Wilson's view, however, the GM-type contract "only provides for doing in an orderly way what others will find they will have to do finally anyway, and after a great deal of friction, loss of efficiency and leadership, and maybe loss of all production in case strikes occur."

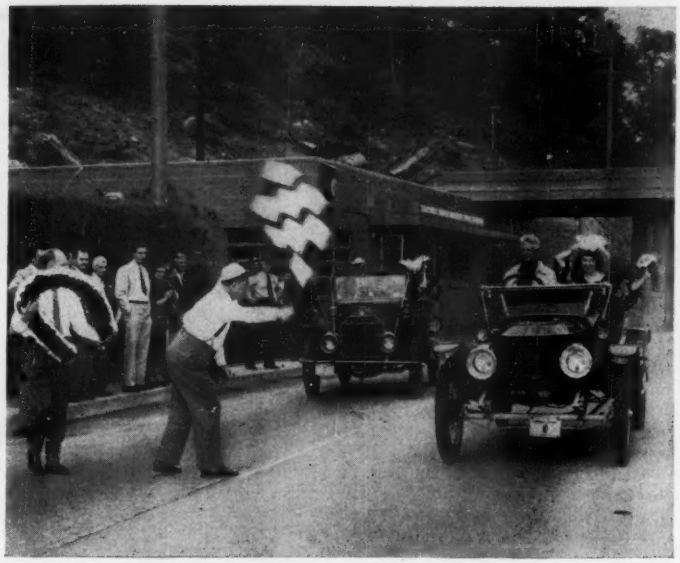
"What actually happens," he said in his letter, "is that taxes are increased, workmen's savings increased, there should be some increase in total production, so that whether in total such action results in more inflation depends on what happens in other segments of the economy."

In fact, he said, the cost-of-living provision actually tends to resist inflation "since wages are only adjusted upward several months after the cost of living has increased and the facts recognized."

Wilson pointed out that in 1949 and the spring of 1950 wages at GM were actually reduced a total of 5¢ an hour in accordance with this provision —making it a two-way escalator.

• **Efficiency**—One of Wilson's clinchers is that productivity keeps pace with escalator-clause wage increases.

"We did achieve an improvement in labor efficiency last year somewhat in excess of the 2½% we granted to the men," he said. "This leaves us some margin for continued product improvement and to give the customer more for his money."



Old-Timers Settle an Important Issue . . .

More Leisurely Than Road Race Entrants

Car-racing enthusiasts had almost more excitement than they could stand last week. The old argument as to which was better, the steam or the gas buggy, was finally settled. A 1913 Stanley Steamer and a 1911 Stoddard-Dayton—both from Chicago's Museum of Science & Industry—tore across the country from Chicago to New York. Highlight of the race came when Jack Brause, 76-year-old driver of the steamer, was arrested for speeding at Lorain, Ohio. He'd whooped it up to 63 mph. In spite of this handicap, he steamed across the finishing line on the Saw Mill River Parkway at Yonkers, N. Y., 37 min. ahead of his rival (top picture). His average speed: about 22.5 mph. The museum and the magazine Popular Mechanics sponsored the race.

At the same time, crowds lined the streets to watch the fourth annual road race at Watkins Glen, N. Y. Here racing is a serious business. The majority of entrants ran European models, but the American Cunningham won the Grand Prix. Average speed: 77.65 mph. The Sports Car Club of America and Watkins Glen Chamber of Commerce cosponsored this event.

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BUSINESS BRIEFS

Another railroad went 100% diesel this week when Lehigh Valley R.R. ran its last steam train. The road once had a fleet of more than 1,000 steam locomotives. Now it has 226 diesel units.

•

Steamship companies agreed to accept $75 a day for each ship they operate for the government under a general agency contract. The new rate is halfway between the $50 paid in World War II and the $100 demand made by the operators. The pact affects 44 firms operating 281 freighters for the National Shipping Authority.

•

A new teletypesetter circuit opened this week for United Press clients in Texas. Last week UP opened a new circuit for 33 newspapers in Pennsylvania, Ohio, and West Virginia. Two other circuits were already operating in Oklahoma and in North Carolina, Georgia, and Tennessee (BW–Aug.11'51,p34).

•

Oregon withdrew a $40-million bonus bond issue when the Voluntary Credit Restraint regional committee (page 148) tagged it as inflationary. West Virginia had previously postponed a $67.5-million issue for the same reason. But both states were reported exploring the possibility of retail sale of bonds through state banks.

•

Hadacol broke up its famous roadshow with a farewell performance in Dallas. The new owners (BW–Sep.1'51,p26), it was said, thought the show was undignified, wanted to switch to newspaper and radio advertising.

•

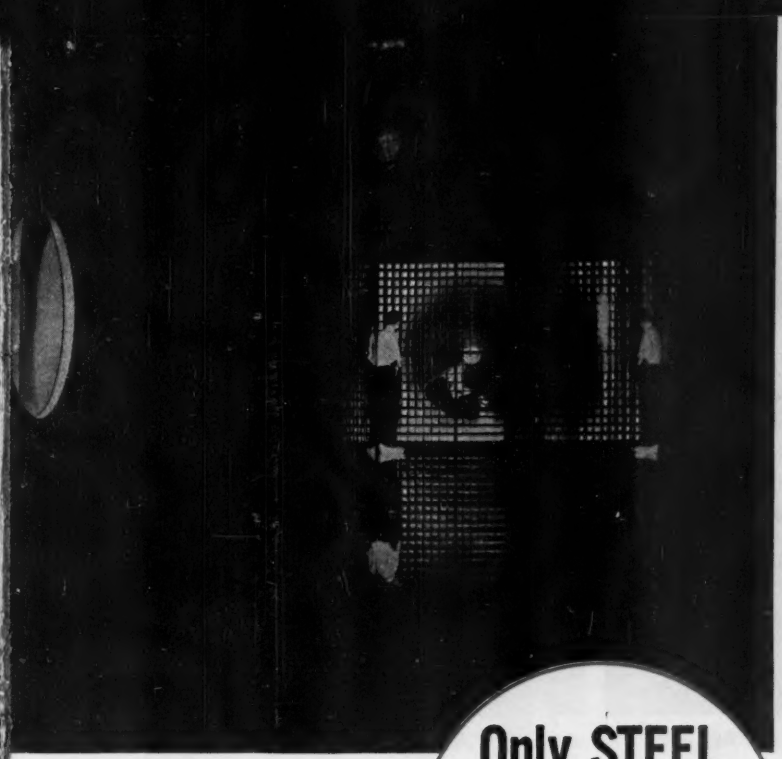
Nahma, Mich., was saved from extinction this week. American Playground Device Co. of Anderson, Ind., bought the town, will set up factories and promote the area as a vacation center. Nahma was put on the block by Bay de Noquet Co. when the timber supply ran out (BW–Apr.28'51,p62).

•

A big new chemical company will spring up in Texas. DPA granted the new Alamo Chemical Co. a fast amortization certificate for a $38¾-million anhydrous ammonia plant near Houston. Parent companies of Alamo Chemical are General Aniline & Film Co., Borden Co., and Phillips Chemical Co.

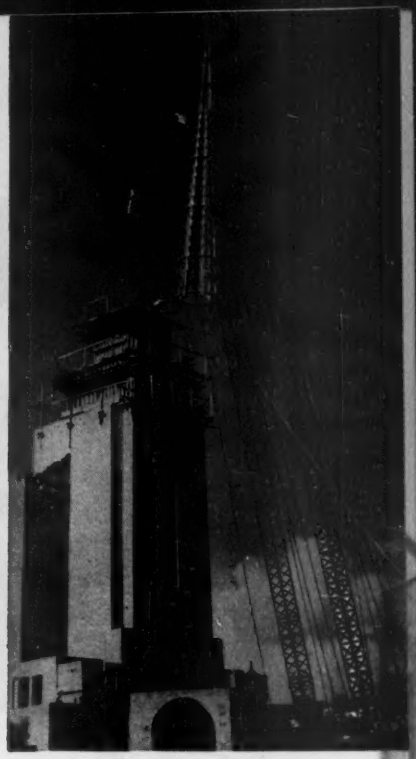
•

The Navy awarded contracts for a new jet fighter plane, the McDonnell F3H Demon. A prototype was test-flown at St. Louis last month. Builders will be McDonnell Aircraft Co. of St. Louis and Goodyear Aircraft Corp. of Akron. Goodyear built more than 4,000 Navy Corsairs in World War II.



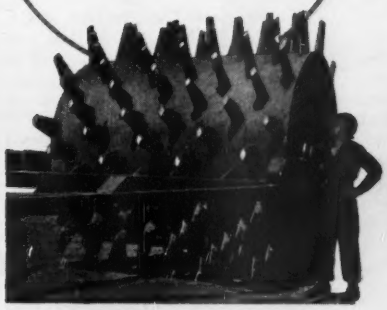
CAVE OF THE WINDS. This largest "supersonic" wind tunnel in the world—at the National Advisory Committee for Aeronautics, Lewis Laboratory, Cleveland—is capable of providing air velocities up to twice the speed of sound for aeronautical research. The tunnel's testing chamber measures 8 by 6 feet, and has flexible walls of highly-polished U·S·S Stainless Steel plates, specially made by U.S. Steel for this vital defense project.

Only STEEL can do so many jobs so well



HOW TO SWING A STEEPLE 80 FEET UP. Here are two cranes completing the 80-foot lift of a prefabricated steel steeple, and about to swing it over its base. United States Steel has won a world-wide reputation as fabricators and erectors of steel work for everything from football stadia to church steeples, from bridges to television towers.

NEW WAY TO GATHER GOOBERS. This new peanut combine threshes along the row where the peanuts are grown, gathers up nut-laden vines, picks them clean, and deposits the mulch to condition the soil for the next crop. In tests, it has reduced harvesting man-hours per acre from 30 to 4, lets two men do the work of 12, saves $40 an acre. Making steel for such equipment, U.S. Steel helps build a more productive America.



GIANT SHEEPSFOOT ROLLER. Army Engineers find this odd-looking, 36-ton steel roller a very useful tool for compacting and leveling off fill in the construction of airstrips. Although the defense program will require increasing amounts of steel, the constantly-expanding steel-producing facilities of United States Steel should enable it to supply steel for many essential everyday uses, too.

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FACTS YOU SHOULD KNOW ABOUT STEEL.

In 1951, the American steel industry must be able to purchase 30 million tons of high grade scrap *outside* the industry, if it is to achieve the record steel production goals set for it by our defense program. Memo to manufacturers farmers and proprietors of auto "graveyards": Turn in your scrap it means money for you, more steel for America!

Listen to . . . The Theatre Guild on the Air, presented every Sunday evening by United States Steel. National Broadcasting Company, coast-to-coast network. Consult your newspaper for time and station.

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UNITED STATES STEEL EXPORT COMPANY • UNITED STATES STEEL PRODUCTS COMPANY • UNITED STATES STEEL SUPPLY COMPANY • UNIVERSAL ATLAS CEMENT COMPANY • VIRGINIA BRIDGE COMPANY

LABOR

WHO'LL GET THE ELECTRICAL WORKERS? IUE's Carey (left) and UE's Fitzgerald both claim the advantage. Result: . . .

More Confusion on Electrical Workers

The electrical-manufacturing industry is in for at least one more year of uncertainty. The bickering will go right on between CIO's International Union of Electrical Workers and its rival leftist-led United Electrical Workers. The tussle for supremacy is well into its second round—and, unless one or the other runs into serious internal troubles, could go on indefinitely. Recent bargaining elections—including the one at General Electric Co.'s big Schenectady plant last week—left no doubt on that point.

• **Both Claim Progress**—Both unions were holding conventions this week—IUE in Buffalo and UE in New York. At each, officers reported progress toward dominance in the electrical-manufacturing industry. But the reports had little substance. Mostly, they were window-dressing for a status quo that has existed since first-round tests of strength between the two unions (BW—Jun.17'50,p112).

CIO ousted UE in November, 1949, for hewing too closely to a Communist line. It set up a rival right-wing IUE, headed by CIO secretary-treasurer James B. Carey, to fight UE company by company and plant by plant.

IUE made big inroads into UE over an initial six-month period, as right-wing locals split away from their leftist union. By June of last year, IUE had cut UE's membership in half (from a claimed 600,000 to something under 300,000) and had taken over a majority of UE's biggest contracts.

UE retrenched, and strengthened its defenses in the plants it had left. Since then, IUE-UE feuding has been even-Stephen.

• **GE Situation**—The situation at GE is typical. In May, 1950, IUE got: about 70,000 employees, about half of GE's plants. UE got: some 35,000 employees, about the same number of plants.

In second-round elections conducted by the National Labor Relations Board over the last few weeks:

Lynn (Mass.) GE workers voted to retain IUE as bargaining agent by a close 6,927-to-5,867 vote. Last year this union also won by about the same margin, 6,099 to 5,314. UE, which petitioned for the new election this year, said the vote "proves IUE a minority union at Lynn, although it has the contract there"—because 16,000 are on the GE payroll and only 6,927 voted for IUE.

Schenectady GE workers voted overwhelmingly to keep UE as bargaining agent, rebuffing an IUE challenge 11,542 to 4,851. UE won bargaining rights in 1950 by a smaller margin, 7,761 to IUE's 5,847. UE's gain came despite concentrated and costly campaigning by IUE and its CIO union allies; using leaflets, sound trucks, newspaper ads, and radio and television time, they charged that UE is Communist-controlled and "our country's welfare demands a vote for IUE" in electrical-manufacturing plants.

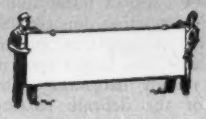
Of the 35,000 GE employees over whom UE still has jurisdiction, 19,000 are in the Schenectady home plant, and about 12,000 are in Erie, Pa. The others are scattered through smaller GE units.

• **Westinghouse, Too**—The 1950 balance between IUE and UE is continuing in Westinghouse Electric plants, too. As in GE, IUE now holds the edge in Westinghouse plants, although the left-wing union is firmly based in many smaller plants in the system.

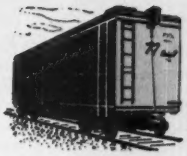
UE retained jurisdiction over one of the latter, in Jersey City, in a recent exploratory sally by IUE. The vote: a close 397 to 319.

In another possibly significant test, IUE lost a union shop vote at the big IUE-contract Westinghouse plant in Buffalo. Only 2,330 employees voted for a union shop—which would require all workers to join and stay in IUE; 1,654 employees voted against it, and 1,128 didn't vote. IUE lost because it failed to get a majority of all employees eligible to vote on the issue. UE said the defeat indicated a trend against IUE in Buffalo, began planning for a representation fight there.

• **Bargaining Barrier**—Obviously, confusion and uncertainty over bargaining



LARGE PANEL SIZE



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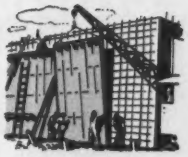
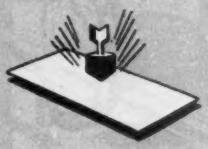
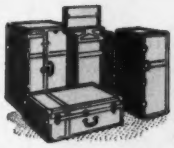


Re-Usable Plywood Concrete Forms Speed Work, Lower Job Costs

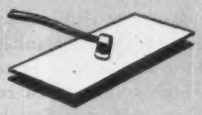


PUNCTURE-PROOF

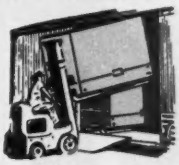
GREAT STRENGTH



Plywood Boxes for Luggage Lend Strength, Light Weight



SPLITPROOF



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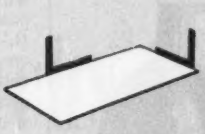
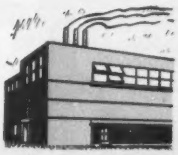


DIMENSIONALLY STABLE



Big Plywood Panels Speed Work On Building and Remodeling Jobs

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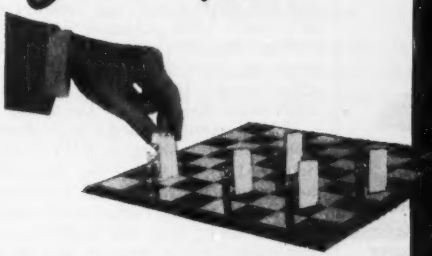
Smart Move!



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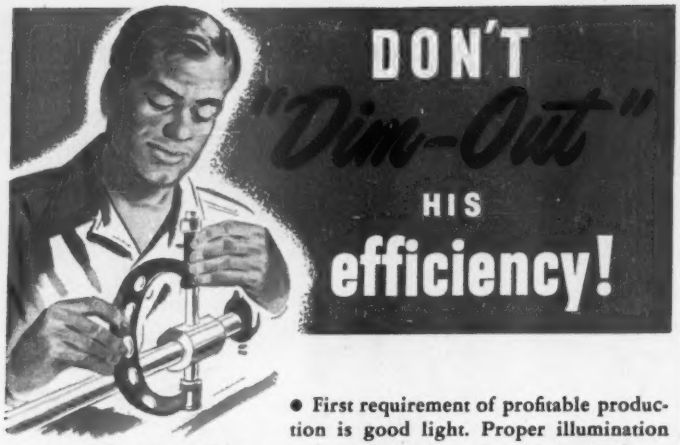

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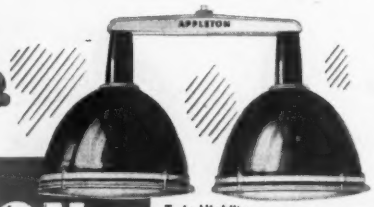

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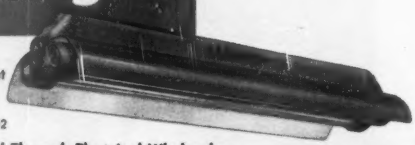
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rights play hob with contract negotiations. Currently, IUE and UE are seeking new contract terms from GE. They are competing for concessions; management is caught in the middle. There is only one bright spot in the resulting muddy bargaining situation: Because of the delicate balance between the two unions, neither wants a strike.

Peace at Hapco

But too late to save a $25-million crop. Pineapple company accepts new ILWU wage pattern.

Workers went back to their jobs at Hawaiian Pineapple Co.'s Lanai plantation this week, ending a seven-month wage strike. But settlement of their dispute came too late to save much of Hapco's $25-million crop. Fruit was rotting on the world's largest pineapple plantation (BW—Aug.4'51,p37).

• **Industrywide Pact**—A local of the International Longshoremen's & Warehousemen's Union struck at Lanai last Feb. 27, after turning down an 8¢ pay hike that other ILWU pineapple workers had accepted. Hapco held out, refusing to let a ripening pineapple crop dictate a quick settlement at a higher figure.

Last week Hapco joined with negotiators for six other Hawaiian pineapple producers for new wage talks with ILWU. Originally set for Nov. 15—under a wage-reopening clause—the negotiations were speeded up at government urging. And a week of secret sessions ended amicably with a new 7¢-an-hour raise.

For Lanai workers, the pact specifies a 15¢ increase—the 8¢ they turned down before, which other pineapple workers have had in their paychecks since last fall, and the new 7¢ raise. The 8¢ is retroactive from October, 1950, to the day workers struck.

To offset charges of a strike fiasco on Lanai, ILWU hurriedly claimed "a victorious strike" had forced pineapple companies into industrywide bargaining and had speeded up a new raise for all of Hawaii's 9,000 pineapple workers.

• **Peace Ahead**—The new pact runs to February, 1954, but can be reopened after Nov. 15, 1952, on wages and two other items designated by the union.

ILWU recently signed a sugar-plantation contract running to 1954 (BW—Sep.15'51,p46). Only the Hawaiian longshoring contract is still open—and progress is reported toward a settlement on the docks, too. So prospects are bright for a year or more of labor peace on the islands.

Soda for cast iron stomachs...

Pig iron, iron and steel scrap, coke and limestone — the ingredients of cast iron — make up the diet of this cupola... and it's amazing how a little soda helps. It improves melting conditions, conserves heat, expels occluded gases — most important, it helps remove impurities to produce a better grade of iron for cleaner, sounder castings.

The soda used in the foundry is soda ash — actually sodium carbonate, a close relative of the sodium bicarbonate you keep in the medicine chest. Melted and cast into two-pound pigs, the pre-measured soda ash is added safely and accurately to the cupola charge and to the molten iron in the ladle.

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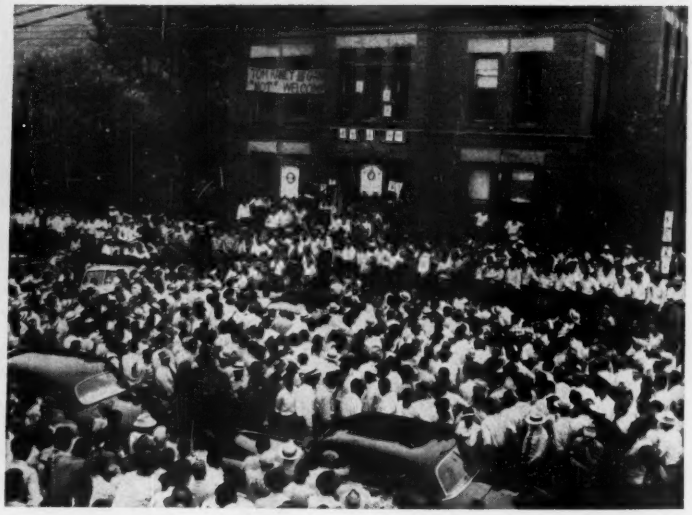


UNION RALLIES in coalfields got crowds, but few new members. So there's . . .

Trouble Again in Kentucky

John L. Lewis, out to organize Clay and Leslie County miners, charges violence and intimidation on part of operators. His civil liberties suit may become new weapon for unions.

John L. Lewis is taking a licking in the Kentucky coalfields. In a flareup of violence reminiscent of the "bloody Harlan County" of the 1930's, the UMW chief has had to go to the federal courts for help.

• **Pistol Whipping**—In a $2-million damage suit filed last week, Lewis charged mine operators, sheriffs, and judges with a raft of civil liberties violations. He said that since mid-June, miners sympathetic to UMW have been fired by employers, threatened, "pistol whipped" and beaten, and arrested on "trumped up" charges; UMW organizers have been assaulted, and their automobiles ransacked and blown up; homes have been machine-gunned at night. All this, Lewis said, was "company inspired"; public officials didn't seriously try to stop it.

Mine operators and county officials denied the charges. They said they do not oppose "peaceful activities" of the unions. Troubles in the two counties are due, they alleged, to UMW efforts to force nonunion miners to sign up. They accused UMW of sending "goon squads" from neighboring Districts 19 and 30—including Harlan County—to "organize" Clay and Leslie mines or to close them.

• **New Weapon?**—Lewis' resort to the civil liberties technique may be the first sign of a new weapon for labor's arsenal. If it works, it may be a far more forceful weapon than the Taft-Hartley law provides.

Lewis never met the requirements for operating under T-H. He has consistently refused to sign the non-Communist oath. Thus his union couldn't use the unfair-labor-practice procedure against employers. It turned to the civil liberties technique instead.

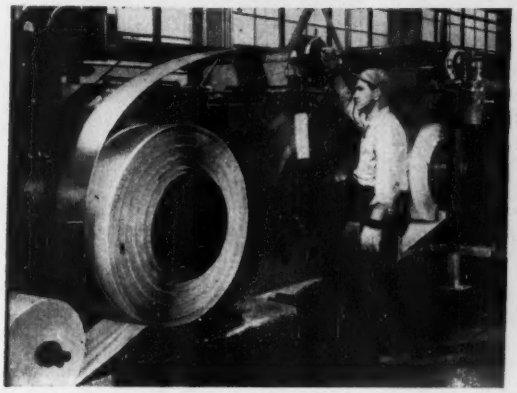
• **Complaint**—UMW's bill of complaint charges specifically that law officers of Clay and Leslie Counties are paid by nonunion coal companies; that companies and allied public officials have consistently interfered with the right of miners to assemble peacefully and to organize; and that through "trumped up" charges they have falsely imprisoned union organizers and sympathizers.

In addition to asking damages, the union called on the federal court to enjoin them.

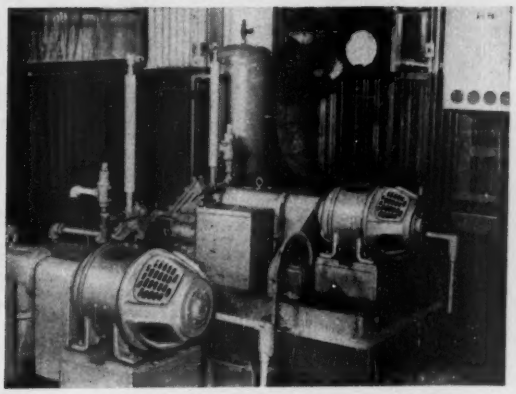
• **Who's Involved**—The feuding is over some 3,000 Clay and Leslie County miners. UMW, which has organized 95% of the nation's miners, is out to sign them up. It complains it has run into "old style" employer opposition, through "operator-inspired coercion and intimidation" of union miners.

Most of the 40 nonunion mines in the two counties began production during, or right after, World War II. Be-

4 WAYS TO HELP KEEP YOUR PRODUCTION ON SCHEDULE



ELIMINATE MANUAL OPERATIONS. If you're winding a continuous strip and constant tension is a problem, this might be an idea you can use. The Wallingford Steel Company recently installed seven G-E Speed Variators on the winders in their strip steel annealing and pickling line. Before, a lot of time was lost in manually adjusting winder speed and tension to compensate for spool buildup. Now? It's done automatically by the Speed Variator. *And* they get a better-wound spool. Ask for Bulletin GEA-5335 on G-E Speed Variators.



MAKE QUALITY CONTROL AUTOMATIC. Perhaps you're finding it difficult to accurately control a chemical proportion operation. Fibreboard Products, Inc. solved this problem by putting a G-E Thy-mo-trol* Drive on a chemical pump which injects a chemical conditioner into process water as it is needed. The trick is to keep the flow of chemical accurately proportionate to the demand—no trick at all for Thy-mo-trol. Ask for Bulletin GEA-5337 on Thy-mo-trol drive.

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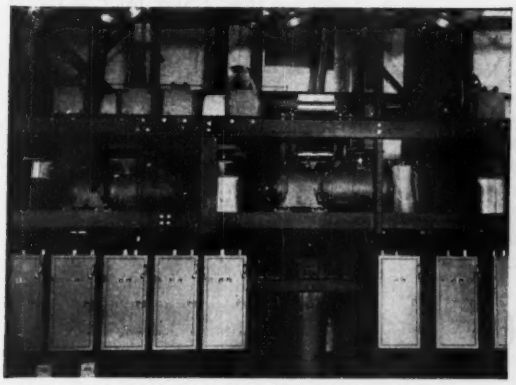

GO FROM BATCH TO CONTINUOUS. To boost production, more and more companies are switching from batch to continuous operation. This accounts for the great interest in this "junior" bleaching range now being produced by the H. W. Butterworth Co. Its G-E ACA gear-motor drive helps make it flexible, efficient, and economical. Speed control is easily obtained over ranges of as high as 20:1. Ask for bulletin GEA-4883 on ACA motors.

INCREASE MACHINE SPEED to get top efficiency out of your equipment. The J. Bishop Company faced a problem of frequent breakage while drawing wire and tubing thinner than a human hair. This G-E Speed Variator, installed on a vertical bull block, reduced costly breakage to the minimum, turned a complicated process into one simple operation.

To get the bulletins mentioned above, write *Section 646-16, General Electric Co., Schenectady 5, N. Y.* A 26-page manual on electrical adjustable-speed drives in general is also available; ask for Bulletin GEA-5334.

Headquarters for ELECTRICAL ADJUSTABLE-SPEED DRIVES

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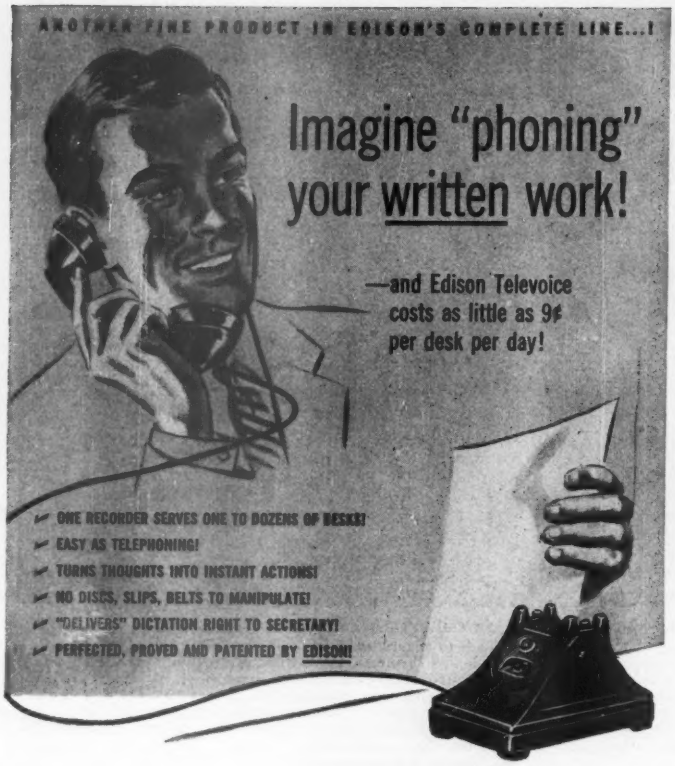
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cause of that, the union says, the men employed did not get to "participate in the organizing drive of more than a decade ago" in Harlan and various other coalfields in Kentucky and Tennessee.

Operating without UMW contracts, the Clay and Leslie mine operators have shaved about $1 a ton off the cost of coal produced—and off prices. Mines with UMW contracts in the same area have protested to Lewis that nonunion mines are now forcing them out of business.

UMW launched a large-scale organizing drive in the two counties last mid-June, after several exploratory forays.

UMW wanted (1) to get the bloc of 3,000 nonunion miners into UMW; and (2) to protect the national wage scale in bituminous mines.

• **Cool Welcome**—Clay and Leslie miners didn't welcome UMW organizers. Most, apparently, were well satisfied with things as they were. Although paid a little less, generally, than UMW miners, they actually were earning more money. Their mines were operating a busy five or six days a week, while nearby UMW-contract mines were running only two or three days a week.

UMW bumped into even more trouble as history began repeating itself in the mountain coalfields. Its charges in its suit today are much the same as those UMW made in Harlan County in the 1930's.

Then a Senate investigating committee backed the union's charges. Subsequently, 53 Harlan coal companies, their executives, and a number of county officials were hailed into court on allegations of criminal conspiracy to violate the Wagner act—which, like T-H, barred employers or their agents from interfering in any way with union organizing activities.

Shortly after that, the Harlan County Coal Operators' Assn. signed with UMW in 1938—meeting the union's national bituminous wage rate and reinstating workers fired for union activities.

• **Pressure Move**—UMW's suit is admittedly a pressure move for a similar settlement. Even if the union could have turned to Taft-Hartley, it might not have.

Other unions have found recourse to the law, through the National Labor Relations Board, to be slow and not always successful. The Textile Workers Union of America (CIO), notably, has protested that T-H procedures got it nowhere at all when it was bucking employer resistance in southern textile towns.

Largely because of that, Lewis' new tactics are being watched keenly in labor circles.

PETER SEITZ will lend a helping hand to harassed Wage Stabilization Board as . . .

Strikes Mount

Possibility of getting WSB approval of higher wages by pressure is stirring up a new wave of work stoppages.

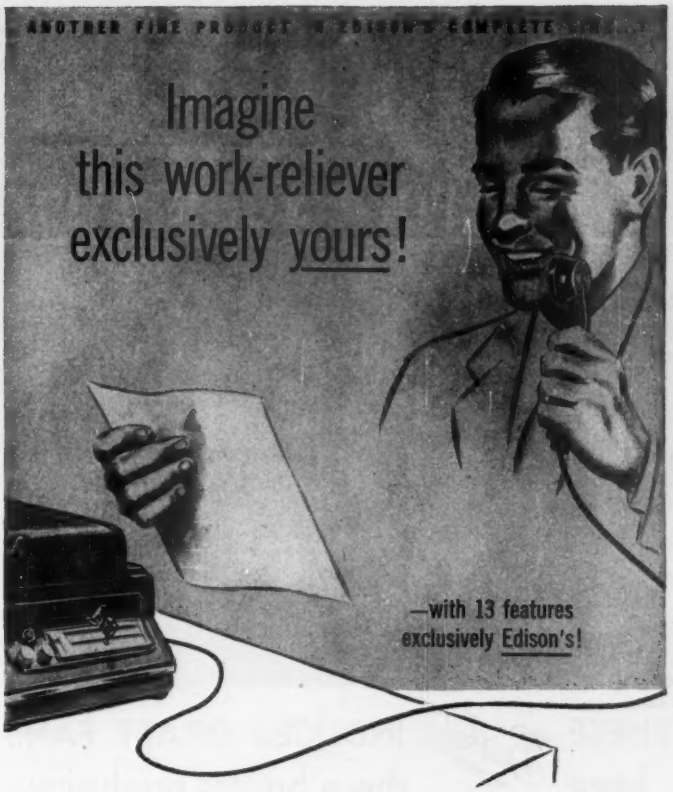
The Wage Stabilization Board is having a bad case of jitters over the increase in strikes during the past few weeks. Worst of all is the board's realization that its present rules—which suggest that raises can be won by union pressure—helped set off many of the work stoppages. WSB is worried, too, because, by law, it handles disputes referred to it.

• **Line of Defense**—To get set for whatever may be coming its way, WSB named Peter Seitz—a veteran mediator and conciliator—as its disputes officer. His initial job is:

(1) To be WSB's "eyes and ears"—to keep tabs on disputes that might eventually come before the board. This will mean close work with the Federal Mediation & Conciliation Service.

(2) To set up guideposts to follow in deciding when to accept a labor dispute submitted voluntarily by both sides. WSB doesn't plan to take up a dispute just because the parties want the board to take over; WSB says it hasn't time or facilities for handling all disputes, and, besides, it doesn't want WSB rulings substituted for decisions in "real collective bargaining." It plans to use a hard-to-get strategy on disputes submitted voluntarily.

(3) To help WSB set up procedures for handling disputes, once they are accepted. No one procedure is planned; rather, WSB wants a choice of several. In the American Smelting & Refining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Still unmatched, still champ in the field of individual dictating instruments, the Disc Edison Voicewriter is the popular choice of those who want or need a facility exclusively their own. Thirteen patented Edison features make it the world's foremost *personal* workload-handler for busy executives. Moreover, it integrates ideally with the EDISON TELEVOICE System, permitting a perfect fit of our equipment to your varied needs. Greatest clarity range of any dictating instrument and twice the indexing accuracy, assuring complete understandability of your voice and of your instructions. Get the facts — *today!*

Edison Voicewriter

JUST OFF THE PRESS! Send for the new booklet, DISTINCTLY YOURS —twelve pages of facts and ideas about this modern, direct way to handle your daily work. Or, for a demonstration, phone "EDIPHONE" in your city. In Canada: Thomas A. Edison of Canada, Ltd., Toronto 1, Ontario.

Thomas A Edison INCORPORATED

EDISON, 7 Lakeside Ave., W. Orange, N. J.

Please send me DISTINCTLY YOURS.

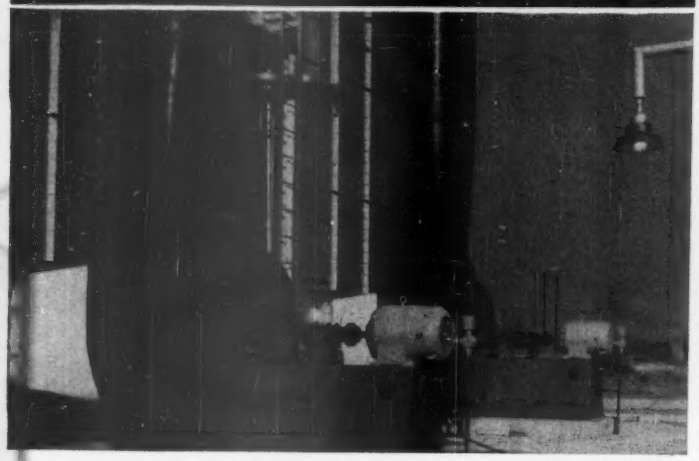
NAME_____

COMPANY_____

ADDRESS_____

CITY_____ ZONE____ STATE____

AIR: As essential as fuel in POWER GENERATION



THESE "Buffalo" INDUCED DRAFT FANS keep these boilers producing at top efficiency

• It takes air—a lot of it—to develop the combustion required for modern high pressure steam generation! And "Buffalo" Draft Fans like those above (at a Texas pipe line booster station) are supplying induced draft dependably in the boiler rooms of every essential industry.

For information on efficient Buffalo Forced and Induced Draft Fans, write for Bulletin 3750.

• *Note: "Buffalo" also builds a complete line of centrifugal pumps for industry.*

First For Fans

BUFFALO FORGE COMPANY

458 BROADWAY BUFFALO, NEW YORK

Canadian Blower & Forge Co., Ltd., Kitchener, Ont.

Branch Offices in All Principal Cities

VENTILATING FORCED DRAFT | AIR WASHING COOLING | AIR TEMPERING HEATING | INDUCED DRAFT PRESSURE BLOWING | EXHAUSTING

–CIO strike, WSB used a panel of three "public" representatives from outside the board. It might want to use a committee of WSB members in some cases. Or it might prefer a tripartite panel.

(4) To be WSB's contact with FMCS and the White House on major defense disputes, to help decide when a referral to WSB might be helpful or when it might be better to use Taft-Hartley.

• **Broad Experience**—Since April, Seitz has been assisting Anna Rosenberg organize the Office for Coordination of Industrial Relations Policies & Activities of the Armed Services. Earlier this year he aided Cyrus S. Ching, then WSB chairman.

Seitz has had both conciliation and labor board experience. During World War II he headed the disputes division of the old War Labor Board. After the war, he served as a public member of the National Wage Stabilization Board during 1946. Then he became counsel for FMCS, working closely with Ching who heads the conciliation service.

• **Major Strikes**—As Seitz took up his new duties, WSB was scanning the horizon and finding plenty of labor clouds:

Caterpillar Tractor Co., Peoria, Ill.—United Auto Workers (CIO) struck July 29 over wage demands, and 27,000 left their jobs. UAW demanded a 19¢-an-hour raise; Caterpillar offered 8¢ with a cost-of-living adjustment next February. The company has many defense contracts, makes heavy road-building equipment, tractors, diesel engines.

Douglas Aircraft Co., Long Beach, Calif.—UAW struck Sept. 5 during negotiations for a contract renewal. Main issues are wages, an improvement-factor raise clause, and a union shop. About 9,000 employees walked out; the strike spread later to cover other operations. The plant produces military transport planes and does experimental work for the Air Force.

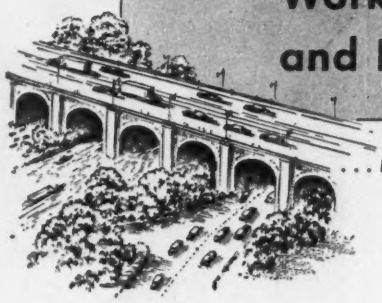
Brown & Sharpe Mfg. Co., Providence, R. I.—The International Assn. of Machinists (AFL) called 4,300 out on Aug. 2 to enforce demands for a pay boost and a union shop. The company makes machine tools.

Sivyer Steel Castings Co., Chicago and Milwaukee—UAW struck the plants on May 31, when 550 quit work. The main issue is an incentive plan, but there are numerous others—including a union demand for companywide negotiations. The company supplies steel castings for railroads and agricultural equipment makers and makes armor plates for defense.

Clark Bros. Co., Olean, N. Y.—United Steelworkers (CIO) struck Sept. 5 on a wage issue; the union wants a 15¢ raise; while Clark offered 10¢. The company makes compressors and heavy oilfield equipment.

Behind the Scenes

ATLAS
Works for Basic Product and Process Betterment



. . . From the Highway

to the Table . . .

Atlas products help improve highways . . . provide more ample supplies of Vitamin C . . . turn out more neatly ironed sheets . . . yield whiter sugar—*help in innumerable directions.*

Atlas does not sell across the counter, hence, the man on the street seldom sees the Atlas trademark. Yet an amazing number of things associated with daily living owe improvement to Atlas products and Atlas service. Every day, men in industry turn to Atlas for help in bettering consumer satisfaction.

Contractors use Atlas industrial explosives to push roads through rock, forest and swamp. Atlas sorbitol is widely used to protect the moisture content of tobacco, glues, cosmetics, pharmaceuticals. Zapon lacquers and other finishes cover the range of wood and metal products. Revolite laundry rolls are important wherever clothes are washed.

Sugar refiners use Darco* activated carbons to produce sugar of highest purity at low cost.

Versatile Atlas products have one thing in common—Atlas service.

Sure, everybody talks about service—probably extra fine service. Well, Atlas service *is* extra fine. Its scope is wide . . . includes technical help, field and laboratory research, work in the customer's plant, extensive literature. Basically, Atlas service is a prescription service designed to provide practical answers to specific needs.

Perhaps Atlas can serve *you*. You can easily find out by sending for the booklet "Products of Atlas." Others have found it worth their while.

*Reg. U. S. Pat. Off.

ATLAS POWDER COMPANY
WILMINGTON 99, DELAWARE
Offices in Principal Cities

Industrial Explosives • Industrial Finishes • Laundry Covers • Acids
Activated Carbons • Hexahydric Alcohols • Surface Active Agents

"We scrapped HABIT-ITIS* for "sample-size" packages of Vuepak . . . and sell pharmaceuticals better, faster, at low cost" —says R. E. Hodgkin, sales Vice-President, Ayerst, McKenna & Harrison, Ltd., New York. Packages above—fabricated by Plastic Artisans, Inc., White Plains, N. Y.

*habit-thinking in design and materials engineering

In sight, in mind . . . in plastics

Manufacturers in many another industry might profitably ponder the sales-success of pharmaceutical houses like Ayerst. Here, management has wiped clear the cobwebs of habit-thinking . . . has discarded old-time materials for new *visual* packages of plastics.

Packages like these—made of Monsanto's Vuepak, cellulose acetate—make selling easier. Help customers "reach for your product" faster. Sparkling, crystal-clear Vuepak is light in weight, yet sturdy.

Vuepak's sales-pulling power is *proved.* So is its low cost per unit.

Vuepak is but one of the big Monsanto family of plastics suitable for fabricated or molded packaging. It'll pay you to investigate them. Just send for Monsanto's idea-booklet, "Package in Plastics." Write to the MONSANTO CHEMICAL COMPANY, Plastics Division, Room 1205, Springfield 2, Mass.

Vuepak: Reg. U. S. Pat. Off.

The big MONSANTO family of plastics

SERVING INDUSTRY . . . WHICH SERVES MANKIND

PLANNING keeps vice-president Pinkowski and secretary-treasurer Guilfoil busy in the office while . . .

Veterans Man

Forty-three paraplegics in Chicago this week are gambling $22,000 in savings on their ability to do a good electronics assembly job. They are the working stockholders of Paraplegic Mfg. Co., Inc., organized by the group because they prefer light factory work to living on disability benefits.

Chartered in April under Illinois laws, the company began production work in mid-June. It specializes in radar, radio, and electrical assembly work, and has a plant set up to operate on an assembly-line basis.

Currently, it is keeping busy on electrical and electronic assembly work, with 28 paraplegics on the job. Present orders will keep this force busy for six months. Meanwhile, Bert E. Josefson, only nonparaplegic connected with the firm, is scouting for new business that would extend employment to about 70 of the 150 paraplegics in the Chicago area.

• **The Bosses**—Bert's brother, Nils S. Josefson, 30, is president of the company. He lost the services of both legs during World War II while serving as a radio technician aboard a carrier in the South Pacific. That cost him a long stay in a military hospital. During 1949 and 1950 he worked as television instructor in Chicago's Commercial Trade Institute.

Other paraplegics weren't so for-

PRODUCING goes on in the specially arranged shop. Left to right, Paul Adams, 35, Wednell Howard, 28, and Raymond Hunt, 26, work in their chairs at power screwdriver machines that have been converted from foot control to hand control.

Wheelchair Assembly Line

tunate, Josefson realized. Seeking a way for them to continue useful, busy lives, he hit on the idea of a factory built specially for paraplegic workers.

Usually it doesn't pay an employer to hire one or two paraplegics, Josefson says. Too much special equipment is needed, including work benches and desks that paraplegics can use comfortably from their wheelchairs.

Josefson got the organizing help of another paraplegic, Dwight D. Guilfoil, Jr., 28, now secretary-treasurer of the company. They approached other paraplegics, including 20 who were still in the Veterans Administration hospital in Chicago's Franklin Park section. Almost all were interested in the plan.

• **The Beginning**—At first, Josefson and Guilfoil wanted 20 paraplegics to invest $1,000 each to set up the company. That was too steep for the disabled veterans. So stock was sold at $50 a share, bringing in a total of $22,000 in cash and pledges from 43 veterans.

With part of the money, the firm leased a vacant factory building conveniently close to the VA hospital. Fitting up the factory for use by paraplegics was a major problem—until the Chicago and Cook County Building & Construction Trades Council (AFL) heard about the project.

Investigation convinced the AFL group that the paraplegics meant business. So the unions pitched in with free work and free materials (including contributions from their employers) valued in excess of $15,000. Not everything is completed yet. But the factory offers some 7,500 sq. ft. of space made to order for the wheelchair workers.

• **Cracking the Market**—The first three orders received—and they came in slowly—were for fluorescent-light-fixture assembly work; wiring in electrical subassemblies; and subcontractor work on electrical testing equipment for the military. The three jobs were enough to keep 15 paraplegics busy. Nils Josefson taught them assembly methods, and they were soon doing an efficient job.

Since then, hesitation about placing orders with the company has virtually ended. Paraplegic Mfg. Co., Inc., now has prime or subcontract orders from 20 companies.

• **Union Labor**—When production started in June, Paraplegic signed a contract with AFL's International Brotherhood of Electrical Workers—one of the unions that helped remodel the factory. All employees now belong to the union, which waived its $10 initiation fee and gave them a six-month exemption from $2 monthly dues. IBEW also is helping them get contracts to keep the plant busy.

"What's all the shouting about?"

They're saying

GOODBYE to the OLD 10 WORD TELEGRAM

You start now with 15 WORDS

That's right! You now get 15 words instead of ten *to start with* in regular, full-rate Telegrams—and *50 words* instead of 25 *to start with* in the ever-popular Night Letters!

Now you can say all you want, express yourself *completely*,—and usually

SAVE MONEY TOO!

Under our new rate schedule, a 15-word Telegram and a 50-word Night Letter cost less, in most cases!

Even *extra* words generally cost less now—and you can still send as many as you wish in the new "economy size" Telegrams and Night Letters!

Ask your nearby Western Union office for revised rate schedule folder.

For business and personal messages—It will pay you to use more and more TELEGRAMS. *FAST. . EFFICIENT*

Just Call **WESTERN UNION**

Compare *new and old rates*

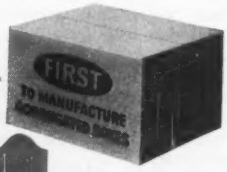
Mileage Zones		15 Word Full Rate Message		50 Word Night Letter	
From	To	Old Rate	New Rate	Old Rate	New Rate
0	75	$ .45	$ .50	$ .45	$ .35
76	125	.55	.60	.50	.45
126	225	.70	.70	.60	.50
226	425	.85	.85	.75	.65
426	790	1.05	1.00	.90	.75
791	1125	1.25	1.15	1.05	.85
1126	1550	1.45	1.30	1.20	.95
1551	2100	1.70	1.45	1.35	1.05
2101	3000	1.95	1.60	1.55	1.20

Check with local W. U. office for effective date of new rates INTRASTATE.

this air conditioner is "travel conditioned"

Even the finest appliance is useless, unless it is *delivered* to the customer in good condition. And to make sure this efficient Oasis Air Drier does arrive in perfect condition, the Ebco Manufacturing Company, Columbus, Ohio, ships it in this H & D engineered shipping box. Specially designed interior packing, with wax-coated surfaces to protect the product's finish, gives complete protection against jolts and bumps in transit.

The H & D Package Laboratory is ready to help with any shipping problem, to provide extra protection, or to give better display . . . increased sales . . . lower shipping and packing costs. For booklet, "Package Engineering," write Hinde & Dauch, 5107 Decatur St., Sandusky, Ohio.



H&D®

HINDE & DAUCH

Authority on Packaging

FACTORIES IN: BALTIMORE • BUFFALO • CHICAGO • CLEVELAND • DETROIT GLOUCESTER, N. J. • HOBOKEN, N. J. • KANSAS CITY, KAN. • RICHMOND, VA. SANDUSKY, OHIO • ST. LOUIS • WATERTOWN, MASS. OFFICES IN PRINCIPAL CITIES.

LABOR BRIEFS

The welfare fund of the International Ladies' Garment Workers Union has grown to $89-million—a rise of $5-million in the past year. The fund pays health, vacation, and retirement benefits. ILGWU dropped 5,300 members last year, due mostly to a slump in its industry. Membership is now 425,700.

•

CIO's rail union faces a critical test next week. About 38,000 Pennsylvania R. R. shopmen—the backbone of the union—will start voting on continuing in CIO or switching to AFL. The poll, supervised by the National [Railway] Mediation Board, will take a month.

•

Baseball umpires in Northern California have voted to accept a Building Service Employees' International Union (AFL) charter for their Umpires' Guild. Quipped a sportswriter: "The guild has called more strikes, right or wrong, than the nation's biggest unions."

•

Communists will be expelled by the International Chemical Workers (AFL) whenever charges against them can be proved. That's what ICW's president, H. A. Bradley, told the union's annual convention in Tampa. He reported that four Canadian members were ousted after trials during the last year.

•

No honeymooner is really looking for work when he takes his bride out of town, a New Jersey jobless-pay review board held recently. It ordered a Newark man to repay a week's unemployment compensation collected when he wasn't "able, available, and actively seeking work"—during his honeymoon.

•

Religious scruples kept two Toledo brothers from joining the Brotherhood of Locomotive Firemen & Enginemen. BLFE asked the New York Central to discharge them under a union shop contract. But last week, to still a wave of protests, the union agreed to let them stay "until something can be worked out."

•

A query to Eisenhower was sent by AFL to find out whether he is "liberal" enough to win labor support if he runs for the Presidency. It asked him to say where he stands on key social and economic issues. As yet, no reply.

•

Seeking workers, Carrier Corp. handed out 25,000 envelopes at a state fair in Syracuse, N. Y., inviting women to apply for jobs. Along with information about Carrier, envelopes contained gifts, plastic keycases for women.

MARKETING

These accounts shifted...	...from these ad agencies...	...to these:
American Chicle	Badger & Browning & Hersey	Sullivan, Stauffer, Colwell & Bayles
Bellows & Co.	Albert Frank-Guenther Law	Benton & Bowles
Bovril of America	Victor A. Bennett	Hilton & Riggio
Campbell Soup (Pork & beans, tomato juice)	Ward Wheelock	Compton
General Cigar (White Owl)	J. Walter Thompson	Young & Rubicam
General Electric (Fred Waring Show)	Young & Rubicam	Batten, Barton, Durstine & Osborn
Gruen Watch	Stockton, West, Burkhart	McCann-Erickson
Kellogg (Corn Flakes)	Kenyon & Eckhardt	Leo Burnett
Lever Bros. (Pepsodent)	Foote, Cone & Belding	McCann-Erickson
Libbey-Owens-Ford Glass (Plaskon)	Meldrum & Fewsmith	Brooke, Smith, French & Dorrance
McCall	Walter Weir	Cunningham & Walsh
Nestle (Nescafe)	Cecil & Presbrey	Sherman & Marquette
Packard Motor Car	Young & Rubicam	Maxon
Lydia E. Pinkham Medicine	Erwin, Wasey	Harry B. Cohen
Quaker Oats (Ken-L-Products)	Ruthrauff & Ryan	Needham, Louis, Brorby
Reo Motors	Brooke, Smith, French & Dorrance	William Hart Adler
Rheem Mfg.	Foote, Cone & Belding	Campbell-Ewald
Schenley Industries		
Reserve, Old Schenley, Sir John, Gin	Biow	Batten, Barton, Durstine & Osborn
Old Stag	Benton & Bowles	Biow
Cream of Kentucky	Federal	Biow
Three Feathers	Weintraub	McCann-Erickson
Golden Wedding	McCann-Erickson	Lloyd, Chester & Dillingham
Wyandotte Chemicals	N. W. Ayer	Brooke, Smith, French & Dorrance

©BUSINESS WEEK

Account Switching Worries Agencies

Advertising is one sphere where action at fever pitch is normal. When an advertiser switches his account from one agency to another, usually no one pays too much attention except the companies concerned. It happens all the time. Account mortality is always fairly high, especially in the highly competitive consumer "convenience" goods—food, drugs, cosmetics, drinks.

Recently, however, someone or something has stepped on the gas. Companies and their advertising experts have been swapping around like some sort of hectic Virginia reel. The list above is only a sampling. Even such long-standing accounts as Packard and Pepsodent have changed hands. Why?

There seem to be three main reasons for late summer's fevered moves:

- The sales slump in some consumer lines.
- Television.
- New promotion thinking.

Sales and More Sales—If Mr. and Mrs. John Doe had spent money more freely on goods during the past months, the switches would probably have been fewer. Backed-up inventories of appliances, carpets, and other products haunt the manufacturer and the distributor. Costs and taxes are climbing all the time. The only way to meet them is through sales and more sales.

When pockets are bulging with record paychecks, as they are now, an advertiser feels he ought to be able to sell. If, for any reason, he can't, his advertising agency becomes suspect.

But big inventories and slow-moving goods won't tell the whole story now. Even when sales are good, there's al-

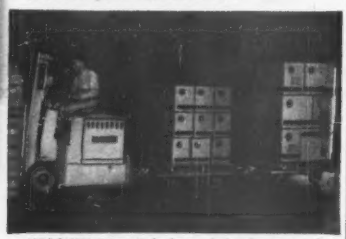
TRAILERS BELONG

IN YOUR HANDLING SYSTEM

Whether hauled with conventional tractors or by power lift trucks, industrial trailers provide the lowest cost method for the horizontal movement of materials. Check your present system for the added economies trailers make possible.

Famous MERCURY A-310 Trailer
Unequalled in design, efficiency and ruggedness. Over a million in use.

MERCURY "Tug" electric tractor pulls train of A-310 pallet loaded trailers.



MERCURY "Jeep" fork truck hauls train of MERCURY A-310 trailers.

For complete details on MERCURY standard and special type trailers, request your free copies of Bulletins 160 and A-999.

MERCURY
MANUFACTURING COMPANY
4146 S. Halsted Street, Chicago 9, Illinois
TRACTORS·TRAILERS·LIFT TRUCKS

". . . They set themselves up as jacks of all trades . . ."

ACCOUNT SWITCHING starts on p. 43

ways the chance that the other fellow's sales are better. And there's a chance that a change of agency might fix that.

• **Enter Television**—To many, the big villain in the piece is television. Television, the advertising business candidly admits, is hell. On the one hand, it excites and fascinates the businessman; on the other, it endangers and challenges agency knowhow. It's exciting enough that Gruen wanted to put some 90% of its advertising budget into TV. And it's dangerous enough that some agencies wouldn't bid for the account for that reason.

It's dangerous because television takes a new kind of knowhow—not only in TV production, but in the fine art of selling the sponsor's product. The opportunities for production blunders are legion.

• **Costs Mount**—Worst of all, a TV production is costly. For the $20,000 a week that the advertiser puts into talent alone for a first class TV entertainment, he wants returns. It's embarrassing to see Oscar Levant or Phil Baker, established radio favorites, canceled off the TV waves after one or two performances. But it's downright painful when you count the costs.

Talent isn't the only cost factor. Other costs have an alarming habit of going overbudget. Every additional rehearsal hour is $250 more for the camera crew alone. If the agency hasn't anticipated such difficulties as overtime, it looks stupid or careless with the advertiser's money.

• **Out of the Drab Stage**—Back at the outset of the 1949-50 season, it was different. Costs weren't so high, mistakes were more pardonable, TV competition wasn't so intense. Certain agencies were allotted funds for frank experimentation. J. Walter Thompson, for instance, could put on a not-too-successful ballet series and write it off as education. A year later, costs were already so high that the zeal for experiment had waned considerably. Today, at the beginning of the 1951-52 season, sponsors are pretty tough minded.

Twenty years ago, the situation in network radio was much the same. As costs rose, agency switching became a common affair. This continued until most agencies gained enough network experience to be protected against further raiding.

So far, TV already has helped brighten or tarnish agency reputations. It helps Kudner considerably that it got hold of Milton Berle. Batten, Barton, Durstine & Osborn, Benton & Bowles, and Weintraub, too, can boast of their successes in TV. A good example of this appeared in this week's newspapers. William Esty Co. hammered on the point that in TV "experience is the only teacher"—and, to prove that the agency was well educated in the field, pointed to such TV programs as Camels, Coca-Cola, Colgate, and Eveready batteries.

• **Jack of All Trades?**—In a way, TV merely dramatizes issues that existed long before its day. One main one: How much service does an agency owe its account? Do its duties end with preparing copy and supervising entertainments? Or do they extend to engineering a whole sales strategy?

The agencies brought this problem on their own heads. They often set themselves up as jacks of all trades, with all the skills, arts, and sciences of modern merchandising on tap. That approach works—as long as they really have the answers. But when TV came, they were up against a medium in which their bag of tricks was still to be filled.

• **Inflation Factor**—A third factor is another basic one. Advertising dollar volume is at a new high—roughly $5.5-million, if you count in everything from matches to sky-writing. But whereas in 1934 advertising took 3% of the national income, today it's getting only 1½%.

Nobody questions that the adman is here to stay. But management is beginning to include new merchandising devices in its kit, off advertising's beaten track. Money is going into new store fronts, space engineering, and such. In these big, integrated schemes, advertising thus plays only one role out of many.

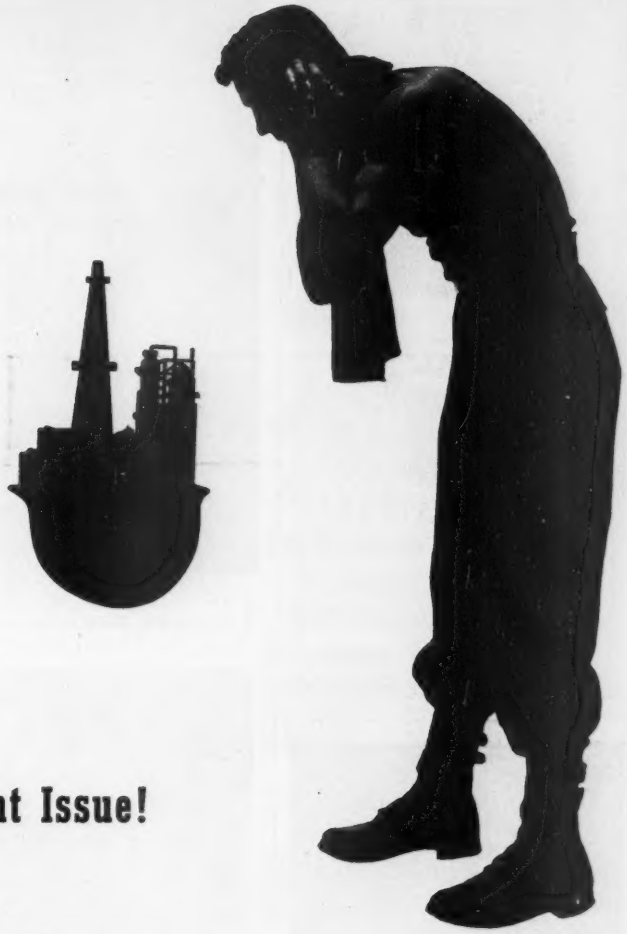
• **Quest for Fresh Angle**—Beyond these, there are factors beyond the agency's control that make for switching:

(1) New faces on the advertiser's top staff often mean new agencies.

(2) Some accounts—if you take history alone as your guide—believe that two or three heads are better than one. These clients change agencies regularly for no other apparent reason than that they think it will "freshen up" their campaigns.

(3) Every agency is subject to "raiding" by its own personnel. Often an account executive sets up his own shop, and lures his old accounts into the new fold. Or he takes a job with another agency—again pulling any loyal followers along.

(4) Occasionally an agency has to "resign" an account, and the client has to move elsewhere. This happens most often when one client comes out with a new product, or otherwise lengthens his line, and in doing so becomes competitive with another of the agency's clients. Agencies don't like accounts that conflict with each other—nor do sponsors relish such a situation.



Look what's Government Issue!

Sure, that little refinery is just a symbol. It's our way of telling you that synthetic detergents made from petroleum chemicals are helping GIs keep clean. These detergents are in the Army's all-purpose bar soap . . . and they give a quick, sudsy clean-up in any climate, in any water.

But that's not all. Other petroleum chemicals may be used to make his plastic helmet liner. Others may be in his grenades and cartridges. And still others may help make and color his uniform.

Atlantic makes some of these petroleum chemicals. We're a major producer of synthetic detergents. Our detergents are in that bar soap . . . and in some of the leading washday products. Chances are there's a place for them in one of your packages or processes.

Here's how to find out. Write to Chemical Products Section, The Atlantic Refining Company, 260 South Broad Street, Philadelphia 1, Pennsylvania.

ATLANTIC
PETROLEUM
CHEMICALS

Provides the last word in property control . . .

● American retrospective appraisals establish unit property records with individual costs, depreciation reserves and provisions—

Kept up to date, they are the last word in property control.

The AMERICAN APPRAISAL *Company*

Over Fifty Years of Service

OFFICES IN PRINCIPAL CITIES

WHELAND

THE FOREMOST NAME IN SAWMILL EQUIPMENT FOR OVER 80 YEARS

COMPLETE SAWMILLS AND AUXILIARY MACHINERY

CIRCULAR SAWMILLS — HEAVY AND PORTABLE BAND SAWMILLS • EDGERS AND TRIMMERS • TRANSMISSION AND CONVEYOR MACHINERY

ESTABLISHED 1866

THE WHELAND COMPANY

CHATTANOOGA 2, TENN.

1 The Bazaar lures Boeing workers inside by its free check-cashing service—there are no banks nearby. Then it turns them into buyers while they're well heeled.

3 The conveyor leads to the check-out counter. A clerk runs up the bill on the cash register as the cases go rolling by. End of the line is door to parking lot.

2 The ladies—mostly Boeing workers and Boeing wives—move to nearby displays of canned goods and compare prices. Clerk loads the conveyor with the cases they buy.

4 The parking lot is handy for loading the purchases into cars. And it's right across the road from a Boeing plant that's bulging with 28,000 potential clients.

Give 'Em Cash, Then Take It

A big plant is a natural-born market for anyone who has a mind to cash in on it.

And that's what J. P. Schiller of Seattle aims to do. He has opened up a new retail food store, called Aircraft Workers Bazaar, just a half-block from Boeing Airplane Co.'s main Seattle plant.

The catchline with which Schiller hopes to lure customers from among the 28,000 Boeing Airplane employees is an extremely old one: "We can get it for you wholesale." The Bazaar has a new twist; it's selling canned goods by the case.

The case price saves customers "up to 20%," the Bazaar advertises. Half-cases can be had at a 10¢ penalty for breaking the case.

• **Great Bait**—Besides that inducement, the Bazaar offers some other business-getting bait. It cashes Boeing paychecks for free. There are no banks in the neighborhood, and other stores charge a dime to cash them. The service is a real lure because many Boeing employees, especially the ones who haven't been around long, have no permanent check-cashing arrangements. It works well for both parties. The workers get their money—and Schiller gets first crack at it.

Opening day there was a big splash. Customers got cups of coffee on the house; women customers got free or-

FAR-AIR* FILTERS

are unequalled in Quality, Construction and Performance

16 gauge filter and holding frames assure well-aligned, rigid filter banks. Interlocking holding frames are easy to install and the rugged construction prevents distortion. Felt liners effectively prevent air by-pass.

Reinforcing rods drilled through the media insure rigidity and add to service life.

Herringbone-crimp media design assures dependable higher performance, larger dirt holding capacity, lower pressure loss, easier cleanability, reduced maintenance costs. Media is packed firmly and evenly in the frame resulting in even density throughout the filter and assuring uniform high efficiency over the entire filter area.

You can be sure of a high performance air cleaning job when you specify Far-Air Filters. Precision engineering plus quality construction to rigid specifications assure *uniform* performance. Available in a wide range of types and sizes for dirt, lint, grease, entrained water, paint, ink, and many other air filtering applications. Contact your local representative or write direct to Farr Company, P. O. Box 10187, Airport Station, Los Angeles 45, California.

*Trade Mark Reg.

FARR COMPANY

Manufacturing Engineers

Los Angeles • Chicago • New York

Mfd under license by Control Equipment Co. Ltd. Montreal

Immediately available...

PC Glass Blocks are the answer to your fenestration problems!

● Whether you are concerned with sash replacement or new building, make sure that your plans include handsome, money-saving PC Glass Blocks. For they rarely need repairs or replacements. No metal or wood sash is involved, requiring periodic painting and puttying. PC Glass Blocks have more than twice the insulating value of ordinary, single-glazed windows, so heating and air-conditioning costs are reduced. They admit floods of natural daylight over wide working areas, making more usable space available. No critical defense materials are used; thus, you can go right ahead with your construction plans. Why not fill in and return the coupon for complete information on PC Glass Blocks?

"PROTECTIVE LIGHTING" at night on surrounding yards is afforded at the Murphy Paint Company Limited, Toronto, Ontario, Canada, by PC Functional Glass Blocks. By day, these glass blocks admit ample daylighting, scientifically directed and diffused. Architect: J. C. Meadowcroft, Montreal, Quebec, Canada.

Pittsburgh Corning Corporation
Dept. M-91, 307 Fourth Avenue
Pittsburgh 22, Pa.

Without obligation on our part, please send us a FREE copy of your booklet, "The mark of a modern building—PC Glass Blocks."

Name.....

Address.....

City.....State.....

PITTSBURGH CORNING CORPORATION
PITTSBURGH 22, PA.

PITTSBURGH PC CORNING GLASS BLOCKS
The mark of a modern building

Distributed by Pittsburgh Plate Glass Company; W. P. Fuller & Co. on the Pacific Coast; Hobbs Glass Ltd. in Canada; and by leading distributors of building materials everywhere.

". . . Save up to 20% on your canned goods by the case . . ."

WORKERS BAZAAR starts on p. 46

chids. A big sign urged buyers to draw lots for a free trip to Hawaii.

• **From Buying to Selling**—Schiller himself used to be on the purchasing staff at Boeing. Associated with him is Allan Chapman, head of the food brokerage firm of Allan Chapman & Co. of Seattle and Anchorage, Alaska. At the outset, the Bazaar shaped up as a way of creating customers for the lines Chapman handles.

Check-cashing windows are in the middle near the entrance. Toward each end of the building are two large islands of canned goods in cases, stacked higher than a man's head. Each island is a shopping unit. A roller conveyor runs around each. The clerks stand inside the circle and load cases on the conveyor as the shopper makes her choice. The shopper rolls the goods along the rollers, past the cash register, and out to the parking lot.

• **Saving Varies**—Though Schiller started out proclaiming, "Save 20% on your food bill every month," he changed his tune a little the day after opening. His newspaper ads then read: "Correction. We have been cautioned against selling canned goods too cheap at our Bazaar. Our ads should read, 'Save up to 20% on your canned goods in case and half-case lots.' Our prices are based on such a saving to you."

Schiller explained the change on the grounds that on several items the saving is less than 20%—only 20¢ a case on canned milk. On White House coffee at 78¢ a lb., however, he figured the saving was 24%.

• **Breakers Ahead**—Opening day featured such national brand names as Hunt's Foods, White House coffee, Kingan Meats, Sunny Jim Jams, Dennison's, and Heinz. But there were rumblings that indicated he might have to change some of that, too. At the Washington State Retail Grocers & Meat Dealers Assn., an observer commented that the Bazaar would have a hard time getting more merchandise.

• **But Boss Is Happy**—Schiller, however, thinks he has a good thing. He figures that the Bazaar will operate on a 10% markup. About 7½% will take care of operating costs, leaving 2½% for return on investment.

Schiller sees the Boeing Bazaar as just a first step. He plans 10 such shops in all under the same name, but incorporated anew at each industrial plant with $50,000 capital. Likely sites: aircraft plants in California, Texas, Kansas, Maryland, and New York.

Shining Example

of product protection

Oleomargarine, wrapped in Shellmar laminated foil-parchment is rapidly becoming the top favorite of the refrigerated cases. Good reason, too . . . its delicate, fresh-made taste is sealed-in. And shoppers are attracted by the smart appearance of this Successful Package Creation.

No wonder most of the largest oleomargarine producers have turned to this Shellmar material for the solution to their packaging problems.

Perhaps your product, too, can benefit from the creative skill and knowledge of your Shellmar Packaging Counselor. He can help you to use available materials to best advantage, or to get more packages from your present material allocations. Talk it over with him today.

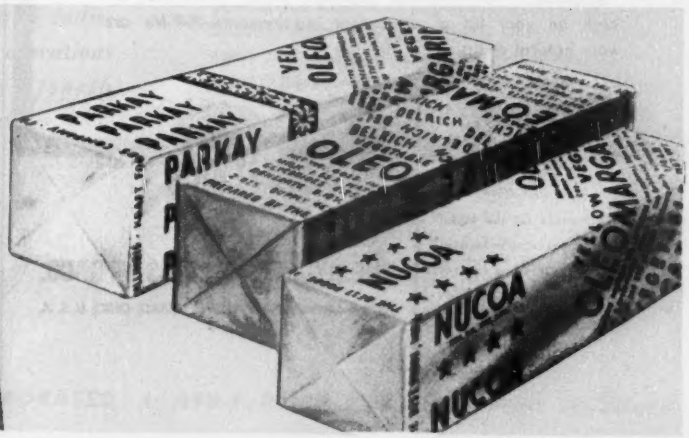
MILITARY PACKAGING—*Shellmar facilities are again available to suppliers of the armed services. A wide range of approved materials is allocated to priority orders.*

Shellmar Products Corporation • Mt. Vernon, Ohio

Plants: Mt. Vernon and Zanesville, Ohio • South Gate, Calif.
Mexico City • Medellin, Colombia • Sao Paulo, Brazil

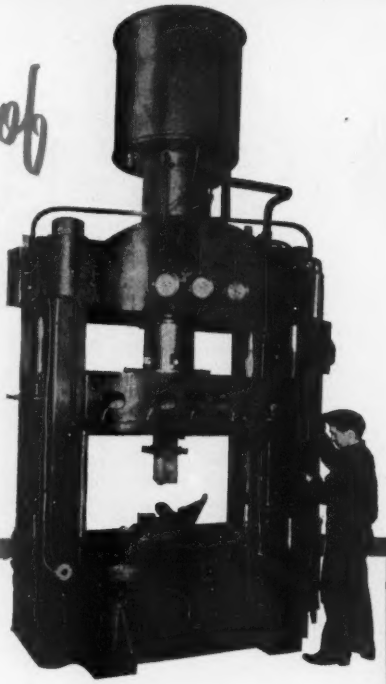
Shellmar
"Successful Package Creations"

The Hallmark of Successful Package Creations



SERVING INDUSTRY THROUGH HYDRAULICS

Speaking of Successful Careers...



● Here's an H-P-M that is celebrating its 16th birthday with a service record that's hard to beat. Although not the oldest from the standpoint of active service, this H-P-M 200 ton press has turned in a remarkable job for its employer, Rex Metal Parts Company of Cleveland, Ohio. Since 1935, this press has been in constant operation and as Mr. Konrad, President, puts it, "we've never spent a dime on it in 16 years." And this was an important factor to Rex Metal Parts since the 42 man shop production has been built around this H-P-M press. Such performance is not unusual for H-P-Ms, they are built for the long pull in all the industries they serve . . . metal-working, plastics molding or die casting. Remember, if performance and high quality production are high on your list of equipment requirements—H-P-Ms are your natural choice.

HPM

- Makers of Presses for the Metal Working and Processing Industries
- Plastics Molding Presses
- Die Casting Machines
- Hydraulic Pumps, Valves and Power Units

THE HYDRAULIC PRESS MFG. CO.

1000 MARION ROAD, MOUNT GILEAD, OHIO, U. S. A.

Betting on Blends

Distillers Corp.-Seagrams won't follow the industry trend toward more straight whiskies. It plans big sales drive.

For the past year or so, the liquor world generally has been switching its sales push from blends to straight whiskies (BW—Jul.7'51,p118). But Distillers Corp.—Seagrams, the biggest distiller of all, has been standing pat. This raised a burning question in the trade: Would the shrinkage in the blends' share of the market—from 85% to an average of 65% in the last few months—drive Seagrams into straights?

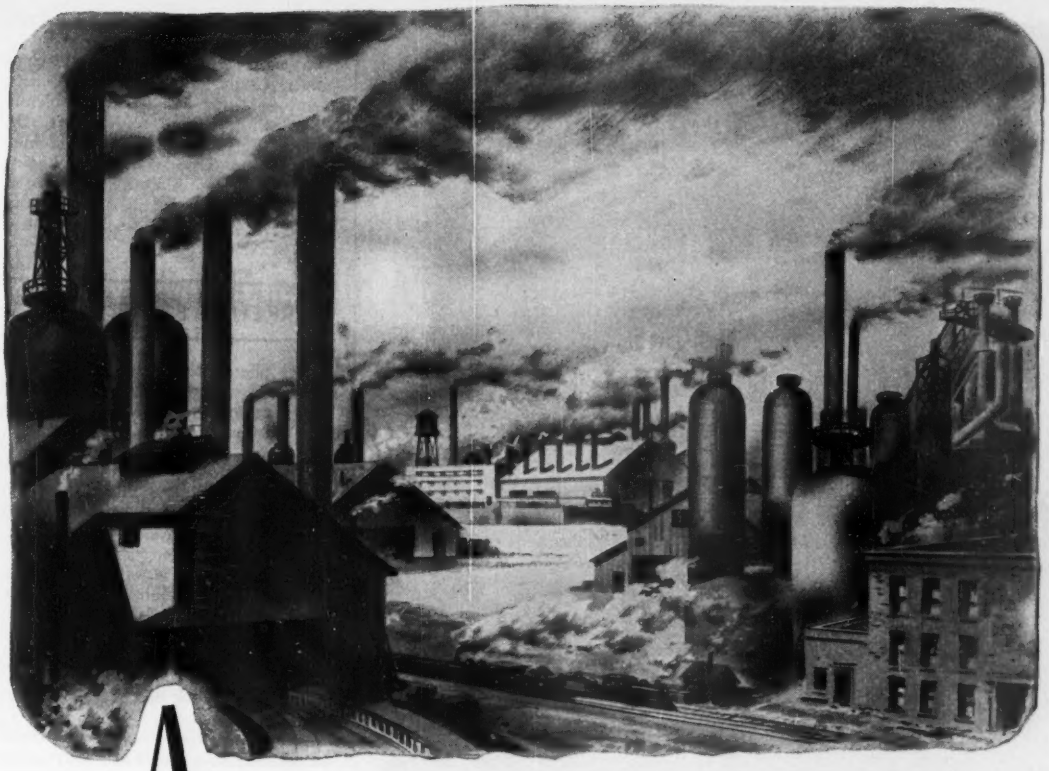
It looks now as though the trade has its answer. All of Seagrams' output—about 30% of the domestic whiskey volume—is still in blends. And this week one of its three major subsidiaries—Frankfort Distillers Corp.—said it intends to stay with its blends. In fact, it's going to spend more money to promote them than ever before.

Speculation has centered more heavily on Frankfort than on either Seagrams-Distillers Corp. or Calvert Distillers Corp., the other two major Seagrams subsidiaries. That's because two of Frankfort's blend brands, Four Roses and Paul Jones, had formerly been blends of straight whiskies. If Seagrams were going to switch, Frankfort would seem to be the place to do it. Frankfort's decision seems to scotch the rumor for the entire organization.

• **Like It Mixed**—Jay Gould, executive vice-president of Frankfort, says his company is convinced people generally like their whiskey "mild" (BW—Jul.14 '51,p102). Besides, Seagrams' 7 Crown and Calvert Reserve hold first and second place among national brand sales. Any step that might endanger that leadership would be weighed long and prayerfully. And a switch now would run counter to the heavy boosting it has put behind its blends.

Frankfort plans to put on the largest advertising campaign in its history for Four Roses (New York price: $4.41 a fifth) and Paul Jones ($3.65), and, in some markets, for Hunter ($3.60). In 1950 it spent over $3.6-million on these three brands in magazines and newspapers alone and probably well over $1-million more in outdoor advertising and point-of-sales materials. Its Wilson blend, which is distributed only in the East, will come in for a substantial boost, too.

• **Not Worried**—The fact that straights have jumped doesn't faze Frankfort. Gould points out that a lot of straights are being sold at substantial discounts or "deals." Many a retailer is loaded up



American industry depends on DITTO

Jones & Laughlin Steel Corporation
Pittsburgh, Pennsylvania,

writes: *"The continuing availability of Ditto is indispensable to our operations as the country's fourth largest steel producer."*

To expedite output, improve material control, reduce production losses and material shortages, American industry depends on Ditto *One-Writing* Systems, Ditto equipment and supplies. Big firms and small firms are alike in declaring Ditto essential to their operations.

Production . . . Purchasing . . . Payroll . . . Order-Billing

You may be startled to discover to what an extent the Ditto *One-Writing* plan can eliminate re-typing and checking in your order-billing, production, purchasing and payroll routines—obviate entirely the costly, annoying errors all re-writings invite. Have an expert Ditto systems engineer survey your procedures (no obligation!), make specific recommendations to meet your needs. Just write.

DITTO, INCORPORATED • 698 S. Oakley Blvd. • Chicago 12, Illinois

One Big Reason

why Americans produce more and live better than any other people on earth: This nation has a system of railroads that moves more tons of freight more miles, at a lower average charge, than any other common carrier transportation system in the world.

Listen to THE RAILROAD HOUR every Monday evening on NBC

Association of American Railroads

WASHINGTON 6, D. C.

with merchandise that moves slowly compared with the blends.

Straight whiskey prices will come down, Gould thinks; prewar, he says, many sold for less than the blends. Price competition could hurt the blends, but Frankfort counts on high incomes to keep consumers buying quality liquors. Almost two-thirds of the whiskey sold today sells at or above the "A" price category—around $4 a fifth in New York.

MARKETING BRIEFS

Servel offered to replace at wholesale prices every Servel refrigerator in the New York area that has been in operation 15 years or more. The announcement came in a full-page ad that also called attention to the company's 11-point service program. Reason for the offer: to combat the hazards—and bad publicity—of defective appliances.

•

The gasoline price war goes on despite Delaware's law prohibiting large price signs. The law allows only two signs, 4 in. by 6 in., to announce the price at any one station. Dealers fought it, and a check after two months showed it hadn't stopped the battle.

•

At-the-desk coffee is saving Prudential Insurance Co. a lot of clerical time in its Newark offices—but luncheonettes in the neighborhood are up in arms because of Pru's "unfair" competition. Pru serves coffee and pastries at cost to employees. Luncheonettes that depended on between-meal snacks say they're being forced out of business.

•

Westinghouse Electric will sponsor 19 TV broadcasts of National Collegiate Athletic Assn. football games this fall. It's one of the biggest promotion drives in its history. Object: to sell TV and household appliances.

•

First aid to book retailers: Doubleday & Co. will pay transportation charges on all books published under the imprint of Doubleday and Garden City. This is the first time a publisher has taken over this cost. The retailer, whose pains are legion (BW—Jul.28'51,p47), has footed the bill up till now.

•

Women's wear and department stores get 75% of the money spent on women's and children's wear, according to the 1948 Census of Business; in 1939 they got 80%. Comparisons are risky, because the government has redefined store types since then, but apparently family clothing, dry goods, and general merchandise groups are gaining on department stores and women's wear shops.

What might the Mings have done with Alcoa Alumina?

This priceless porcelain was produced during the Ming dynasty, a period which saw the science and art of Chinese ceramics reach their zenith. Yet what might the Ming technicians have produced had ALCOA Alumina been available 500 years ago?

PORCELAIN WINE JAR, MING DYNASTY, CHIA CHING PERIOD (1522-66)

Today's *successful* ceramic manufacturers have come a long way since the days of the Mings. By adding ALCOA Alumina to their mixes, they have improved the quality of their products in a number of ways. This highly inert, uniformly pure aluminum oxide makes their ceramics stronger . . . more resistant to heat and mechanical shock. It reduces firing deformation and lengthens the firing range . . . decreases quartz inversion and improves whiteness.

ALCOA Alumina gives *glazes* more impact resistance and increases color brilliance. It makes *glass* sparkle brighter.

Whether you make "modern Mings" or industrial ceramics, ALCOA Alumina can be of great value to you. Let us tell you how. Write to: ALUMINUM COMPANY OF AMERICA, CHEMICALS DIVISION, 600J Gulf Building, Pittsburgh 19, Pa.

Alcoa Chemicals

ALCOA

ALUMINAS and FLUORIDES

ACTIVATED ALUMINAS • CALCINED ALUMINAS • HYDRATED ALUMINAS • TABULAR ALUMINAS • LOW SODA ALUMINAS ALUMINUM FLUORIDE • SODIUM FLUORIDE • SODIUM ACID FLUORIDE • FLUOBORIC ACID • CRYOLITE • GALLIUM

Finest printing costs less for Sears, Roebuck and Co.

...thanks to the revolutionary economy of Consolidated Enamel Papers

Among the most significant changes in Sears' latest catalogs is a great increase in the number of pages now printed in rich full-color.

Naturally these color pages *cost* more. But Sears' actual sales records prove that this finer printing usually pays off by producing sales at *lower* cost-per-unit than ordinary pages for the same merchandise.

One of the factors that has helped make this unusual cost ratio possible is Sears' use of Consolidated Enamel Papers. Thanks to the revolutionary method by which they are made, Consolidated Enamels provide the high quality and printing excellence essential to fine color reproduction at prices that average 15 to 25% *below* those of premium-priced papers produced by old style enameling methods.

For Sears, this means a saving of many thousands of dollars annually. Some of our smaller users save only a few hundred. But *whatever* the size of your printing needs, it will pay you to learn how Consolidated Enamel Papers do the finest jobs *for less.*

Finest enamel paper quality at lower cost is the direct result of the enameling method which Consolidated pioneered. Operating as a part of the papermaking machine, it eliminates many costly steps still required by other papermakers—producing highest quality paper, simultaneously enameled on both sides, in a single high-speed operation.

Consolidated ENAMEL PAPERS

CONSOLIDATED WATER POWER & PAPER COMPANY • Makers of Consoweld—decorative and industrial laminates
Main Offices: Wisconsin Rapids, Wisconsin • Sales Offices: 135 So. La Salle St., Chicago 3, Illinois © C. W. P. & P. Co.

READERS REPORT

Fair Trade Brakes

Sirs:

In his admittedly biased opinion of fair trade and a free-wheeling economy as expressed in Readers Report [BW—Sep.8'51,p106], Louis D'Hondt also indicates a lack of knowledge regarding fair trade and the mechanisms of a reliable free-wheeling economy.

Free-wheeling without brakes is destructive. The Sherman Antitrust Act is a brake on a free-wheeling economy. The Miller-Tydings amendment, under which fair trade laws became effective, improved the free-wheeling brake system of the Sherman Antitrust Act by putting a brake on the free-wheeling distribution of brand-names commodities.

Only selfishly motivated opponents of fair trade have ever declared it to be a price-fixing measure per se. The United States Supreme Court in 1937 recognized that the purpose of fair trade laws is to regulate unfair competition among distributors of brand-names commodities and that whatever price fixing is involved is a perfectly legitimate means to that desirable end.

A report on page 120 of the Sept. 8 issue of BUSINESS WEEK *reflects what happens when free-wheeling distribution gets out of control. I refer to the report of Dun & Bradstreet with respect to the high incidence of retail failures among electrical appliance outlets. It is a perfect example of how uncontrolled free-wheeling in the field of distribution creates wreckage.*

JOHN J. DEBUS
SECRETARY,
THE NEW JERSEY PHARMACEUTICAL ASSN.,
TRENTON, N. J.

Blend for Carpets

Sirs:

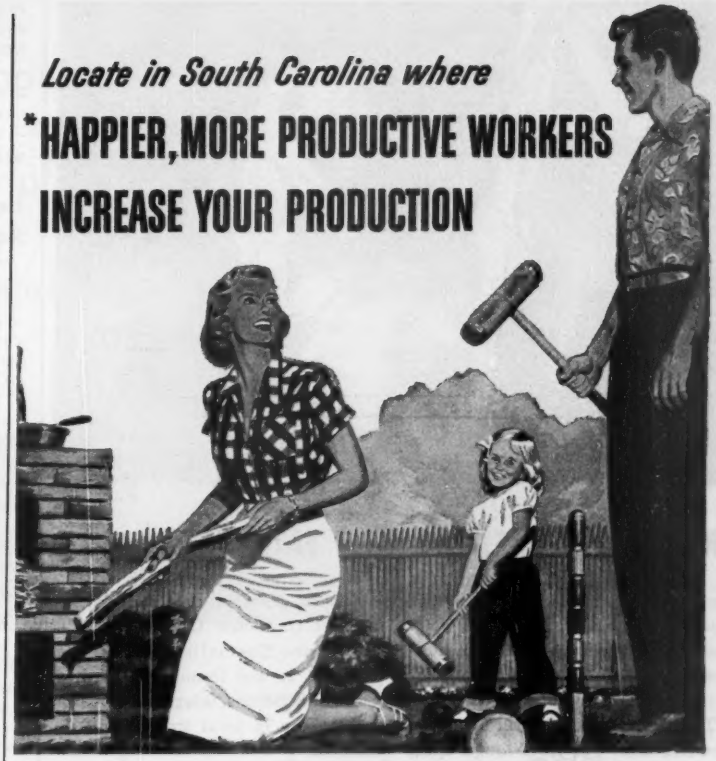
"Welcome Mat For Cottons" [BW—Aug.18'51,p114] is most interesting and very informative. It should do a lot to promote both rayon and cotton carpets and help solve the industry's raw materials problems.

There is just one minor correction that should be in your files concerning Lees' position in this revolutionary stage. We have made only one blend, i.e., a blend of acetate rayon and nylon (90% rayon and 10% nylon). Unlike other manufacturers, we have not blended wool and rayon.

From the start, we have believed that acetate rayon could stand on its own, and we have four carpets of 100% synthetic quality at the present time. With wool prices becoming lower, there is still a reasonable price differential between wool and 100% acetate rayon

Locate in South Carolina where

***HAPPIER, MORE PRODUCTIVE WORKERS INCREASE YOUR PRODUCTION**



South Carolina's more spacious living induces both mental and physical relaxation, contributes to happier lives for workers' families, largely eliminates juvenile delinquency, and consequently frees parents from one of their greatest worries. The result is employee contentment—the biggest influence in quality and quantity of production output.

Many enlightened industrialists are looking to South Carolina for a location where workers have room for lawns, gardens and spacious living. Locate your new plant where happier, more productive South Carolina workers will increase the quality and quantity of your production.

LOCATE YOUR PLANT WITH THESE EIGHT ADVANTAGES:

**Happier, more productive workers*
Cooperative State and Local Government
Nearness to markets
Gentle climate
Wealth of natural resources
Abundance of water and power
Splendid transportation (land, sea, air)
Low cost site and construction costs

Your inquiry will be handled in strictest confidence.
Write, wire or telephone (LD94) now.

Charles N. Plowden, Director—Research, Planning and Development Board
Dept. BW9—Columbia, South Carolina

South Carolina

HELPING HIM TO HEAR 10 FATHOMS DOWN

Divers at work many feet below the ocean's surface often stake their very lives on the special telephone equipment that enables them to talk instantly with deck crews above.

That's why a diving equipment manufacturer was in a tough spot! He'd received a rush order for this vital communication apparatus—but his usual supplier of special telephone parts said he couldn't deliver for 2 to 3 months.

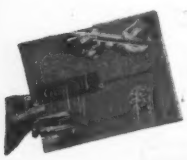
At this point, the worried manufacturer contacted Graybar, and a Telephone Specialist tackled the problem. It was found that, with a few modifications, telephone apparatus already in local stock could be adapted.

Once Graybar showed that the changes meant no sacrifice of safety, the modifications were allowed, and the diving equipment builder made his shipment on time.

● Graybar Specialists in other major electrical fields can help you solve similar technical problems . . . can procure, or suggest alternates, for electrical items in short supply.

Our nation-wide warehouse system permits day-by-day checks on the over-all supply picture, helps you anticipate and forestall shortages before they become critical.

Local Graybar Representatives will forecast delivery dates and supply complete catalog and quotation service on any of the more than 100,000 electrical items Graybar distributes.



Send for this helpful booklet

This 26-page booklet explains Graybar's services and procurement facilities for aiding you in plant expansion and conversion. Write for your copy today. Graybar Electric Co., Inc. Executive Offices: Graybar Building, New York 17, N. Y. 133-29

avoid electrical delays—plan ahead . . . via GraybaR

IN OVER 100 PRINCIPAL CITIES

carpets. *The differential between wool and rayon-wool blends, at the present time, is not so great.*

WILMER D. CRESSMAN
PUBLIC RELATIONS MANAGER,
CARPET DIVISION, JAMES LEES & SONS CO.,
BRIDGEPORT, PA.

Hedge Clipped

Sirs:

In your very interesting article "Puts and Calls: Hedge for the Market" [BW—Aug.25'51,p120], the statement is made that a short-term capital gain can in effect be converted into a long-term capital gain through the purchase of a "put."

This statement was true prior to the enactment of the Revenue Act of 1950. That act, which added Section 117 (1) to the Internal Revenue Code, now bars the use of a "put" for the foregoing purpose.

HARRY SILVERSON
NEW YORK CITY

How Much Dispersal?

Sirs:

Since our company has acted as plant location consultants for over 1,200 companies in the past 31 years, I was intrigued by your article "Industry Shifts Its Plants—Away From Old Strongholds" [BW—Sep.8'51,p22].

Despite all the fine words emanating from the National Security Resources Board, most of our decentralization, unfortunately, has taken place in vulnerable target areas, at the expense of industrial dispersal. Sixty-six and four tenths percent of all certificates of necessity issued since Korea were to companies expanding in cities of 100,000 population or over, already highly concentrated areas.

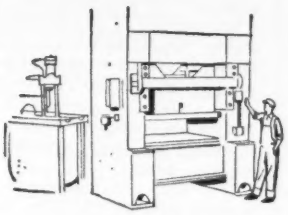
While it is true that the state of Texas received somewhat over 11% of all certificates issued, by far the largest amount of dollar volume and number of certificates were issued in the city of Houston with a population of over 600,000 people and with over 1,000 plants in its metropolitan area.

Two cities, Pittsburgh and Philadelphia, received over 60% of all certificates issued for defense expansion in the state of Pennsylvania. Jones & Laughlin Steel Corp. received a $75-million certificate to expand facilities in Pittsburgh and Cleveland. Westinghouse is planning a multimillion-dollar expansion to produce generators in Pittsburgh. General Motors, Ford, Lincoln Electric, and Chrysler are all expanding in industrially concentrated areas. Chicago alone has received certificates totaling almost $300-million.

In 1948 the National Security Resources Board listed certain qualifica-

let's look at the shape of things to come!

. . . if future plans require it . . .



here's how **you** can cut costs with fewer production operations

You can cut many production steps with plastics today . . . and particularly with the plastic that leads the parade . . . *polystyrene!*

Rapid advances in polystyrene research, in molding techniques and machinery allow you to produce *larger area moldings* in one piece . . . many with complicated and intricate design features. With these new moldings, you may be able to increase your production cycle.

Also—light-weight polystyrene comes in a wide range of built-in colors . . . colors that won't chip, peel or rust. This means that you can keep your finishing operations to a profitable minimum.

Dow, as a leader in the plastics industry, offers you a complete line of *quality controlled* polystyrene plastics under the registered trade mark, Styron, plus the expert assistance of Dow's Plastics Technical Service. When looking at the shape of things to come in '51, be sure to include Styron in planning for future civilian or defense products. Write Dow today.

Plastics Division—Dept. PL-33

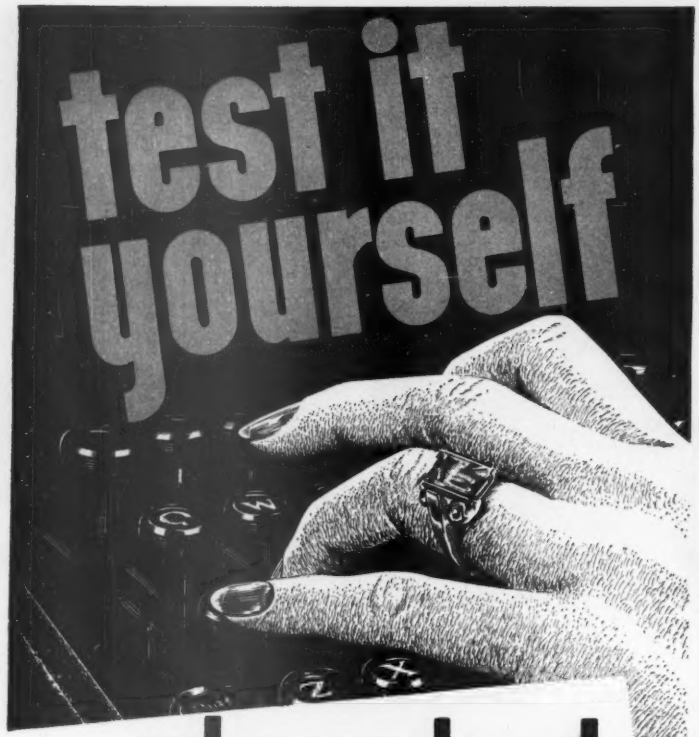
THE DOW CHEMICAL COMPANY
MIDLAND, MICHIGAN

New York • Boston • Philadelphia • Washington
Atlanta • Cleveland • Detroit • Chicago • St. Louis
Houston • Los Angeles • San Francisco • Seattle
Dow Chemical of Canada, Limited, Toronto, Canada

STYRON

. . . a quality plastic for a quality job!

DOW plastics



nekoosa bond

takes and makes a better impression!

What paper are you using for *your* letterheads and other office forms? Your stenographer or secretary can help you make a wise choice. Ask her to type a few lines on *pre-tested* Nekoosa Bond. It takes typing better. *See for yourself!* And note how its smooth, surface-sized finish stands up under erasure. Because Nekoosa Bond leads in *appearance, strength* and *finish,* it's a good paper to use for *all* of your business stationery. Nekoosa-Edwards Paper Company, Port Edwards, Wisconsin.

Nekoosa BOND

MADE IN U.S.A.

• IT PAYS TO PLAN WITH YOUR PRINTER

tions as safety factors for construction of plants. They were: (1) in cities of less than 50,000 people, (2) at least 10 mi. from a major city, (3) at least 3 mi. from any strategic industry, (4) in industrial areas of no more than 5 sq. mi.; (5) away from major air bases, dams, powerplants, (6) in hilly country, rather than in a flat area.

We have done very little to spread our industrial risk. Furthermore, labor reservoirs have been completely disregarded in the issuance of certificates of necessity. The great majority of plants have expanded in areas where our labor resources are already strained.

The government lists Hartford, Indianapolis, Wichita, Cleveland, etc. as areas of actual labor shortage, yet certificates are blithely issued for such areas. Sixty-seven certificates with a total value of over $170-million have been issued in Cleveland, generally conceded to be a labor shortage area.

If we are to prevent atomic or even conventional bombing from virtually paralyzing our war machine, immediate steps should be taken to check area vulnerability before certificates of necessity are issued. Seventy-two percent of our total steel ingot capacity is concentrated in four states. Our aircraft production is concentrated in five large areas, and our oil refineries are centered in several major districts. Three-quarters of our machine tool industry, the key to our entire mass production economy through which we produce all the essential implements of war, airplanes, guns, shells, and all types of ordnance, is located in communities in highly concentrated vulnerable areas.

LEONARD C. YASEEN
FANTUS FACTORY LOCATING SERVICE,
NEW YORK, N. Y.

Connivers Checked

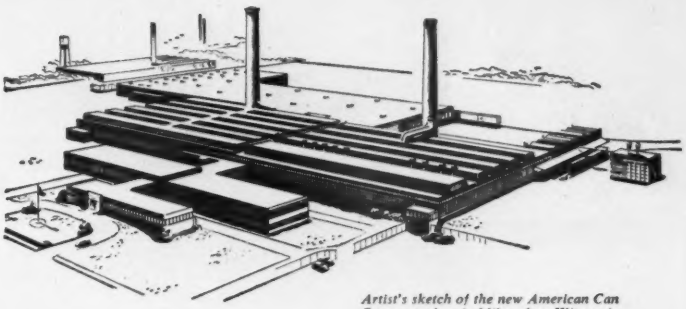
Sirs:

As a social worker, I would like to comment on your editorial "Relief Rolls Are Booming, Too" [BW—Sep.1'51, p132].

You have done a wonderful thing by discussing this very complex subject. Needless to say, your editorial does not present the whole picture and because of this it is apt to be misleading. The majority of people receiving aid are not "connivers." Assistance is given in New York City only on the basis of need, and that need is continually reviewed by New York City, New York State, and the federal government.

Public Assistance Workers throughout the country are doing a grand job, and it is time that they received some well-deserved public recognition of their difficult task.

JACK ROTHMAN
PORT RICHMOND, N. Y.



Artist's sketch of the new American Can Company plant in Milwaukee, Wisconsin

A PARTIAL LIST OF TURNER CLIENTS

20 CONTRACTS OR MORE

American Can Company
Bell Telephone System
General Electric Company
Great Atlantic & Pacific Tea Company
Pennsylvania Railroad Company
Pratt & Whitney Aircraft Division, United Aircraft Corporation
Scovill Manufacturing Company
SKF Industries, Inc.
Socony-Vacuum Oil Co., Inc.

10 CONTRACTS OR MORE

Abbotts Dairies Company
P. Ballantine & Sons
Carborundum Company
Colgate-Palmolive-Peet Company
Congoleum-Nairn, Inc.
E. I. duPont de Nemours & Co., Inc.
National Biscuit Company
The F. & M. Schaefer Brewing Company
Sears, Roebuck & Company
Alexander Smith & Sons Carpet Co.

5 CONTRACTS OR MORE

Aluminum Company of America
American Stores Company
Bloomingdale Bros., Inc.
The Bullard Company
Federal Telephone & Radio Corporation (Subsidiary of Int'l Tel. & Tel. Co.)
International Business Machines Corp.
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United States Gypsum Company
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RECENT NEW CLIENTS

American Car & Foundry Co.
Certain-Teed Products Corp.
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Electrolux Corporation
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Johns-Manville Corp.
Minnesota Mining & Mfg. Co.
Philco Corporation
Safeway Stores, Inc.
Yale & Towne Mfg. Co.

No substitute for mettle...

Built to produce cans for food and beverages, the new American Can Company plant in Milwaukee, Wisconsin, is currently turning out cans by the millions to fill America's needs at home and abroad.

Finished in 1950, it represents the 27th contract awarded Turner by the American Can Company.

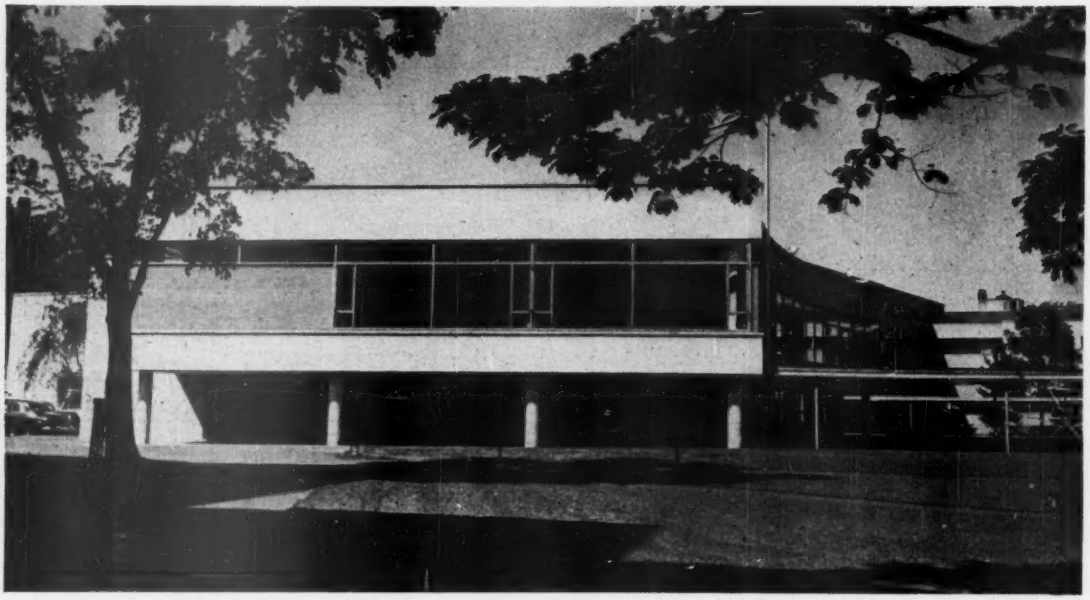
Now in its 50th year, Turner is justifiably proud of the confidence repeatedly manifested in it by such outstanding American companies as this.

Turner Construction Company

FOUNDED 1902

BOSTON CHICAGO NEW YORK PHILADELPHIA

ARCHITECTURE



CHOW LINE A LA MODE. Modern functionalism is rampant in this dining hall, a part of Harvard's $3-million Graduate Center. Walter Gropius, mainspring of Harvard's modern architectural movement, did the preliminary designs. His pupils carried on from there.

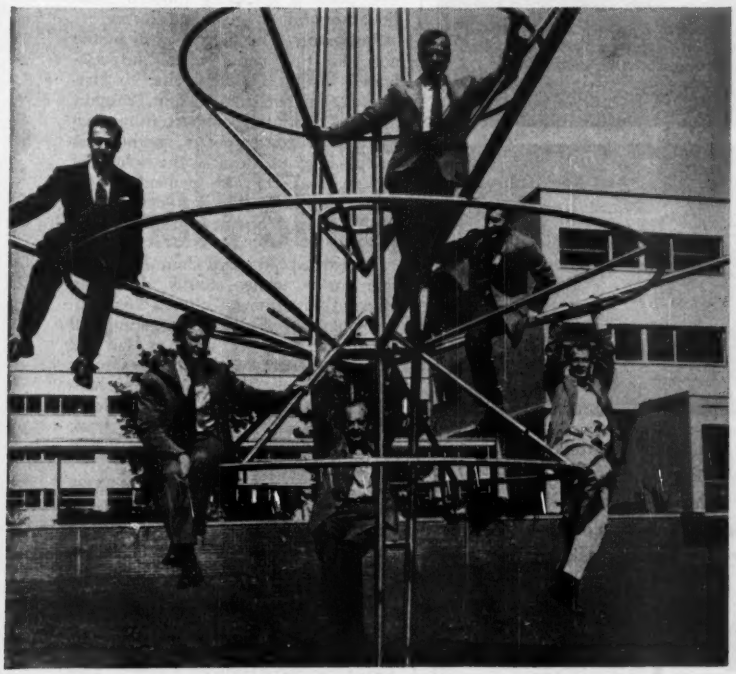
Architects Lift Old Harvard's Face

(STORY ON PAGE 62)

UNIVERSITY HALL, prize confection of the early 19th Century, gives much of the tone of the older Harvard. Yet it's a mere upstart compared with some of the ancient buildings.

BUSINESS SCHOOL, completed in the 1920's, still clung to the architectural flavor of earlier years. Most 20th Century Harvard buildings followed this style until after World War II.

LAMONT LIBRARY was first to wear the new look. Inside the Yard, its modernism manages to fit in nicely with massive lines of its older neighbor, Widener Library.



THE WORLD TREE, symbolic adornment of Harvard's Graduate Commons, serves as a jungle gym for some of the men who designed the new Harvard. In center, with feet on the ground, is Gropius himself. The tree is said to have a great deal of meaning.

LOOK

at your floors . . .

Are they shabby?

Floors which receive heavy traffic become tread-worn and dirt-caked without warning, and then it is an expensive and difficult job to restore their original appearance.

Not only will a TORNADO Floor Machine solve this problem, but it will also eliminate its recurrence.

TORNADO Floor Machines provide sufficient brush pressure to:

1. Rapidly uproot all deeply imbedded grease, dirt and grime.
2. Increase the durability of protective coatings to prevent future penetrations of dirt and grime.
3. Create a clean, glistening floor you can be proud of.

Your floors can always look like new. Proper equipment is the answer.

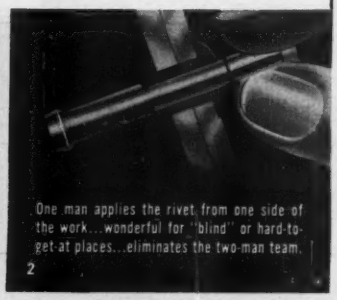
WRITE FOR BULLETIN 383

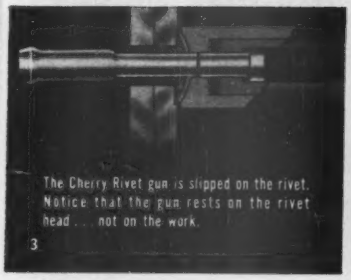
BREUER ELECTRIC MFG. CO.
Dept. B-7
5100 N. Ravenswood Ave.
Chicago 40, Ill.

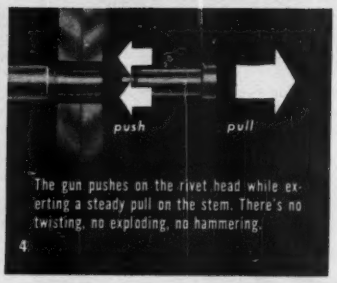
TORNADO Cleans Floors

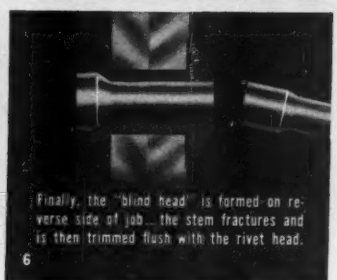
Cherry Rivets offer a simple, easy, rapid way to fasten things together so they won't come apart. Right now Cherry Rivets are saving valuable assembly and maintenance time for railroads, bus and truck body builders, aircraft plants, shipyards, metal building fabricators, sheet metal contractors and appliance manufacturers.

Here's how Cherry Rivets work:


One man applies the rivet from one side of the work . . . wonderful for "blind" or hard-to-get-at places . . . eliminates the two-man team.
2




push
pull
The gun pushes on the rivet head while exerting a steady pull on the stem. There's no twisting, no exploding, no hammering.
4



If you fasten things together in your business, you should investigate the possible savings offered by Cherry Rivets. They speed assembly . . . cut man hours . . . lower unit costs. Let us send you our catalog showing the four hundred different hollow and self plugging Cherry Rivets and how they meet a wide variety of industrial needs. Address Dept. I-333.

Cherry Rivet COMPANY
233 Winston Street, Los Angeles 13, California

A DIVISION OF **Townsend**

ARCADE leads to ultramodern graduate school dormitory. It's just a part of . . .

The New Harvard

(Pictures on pages 60-61)

Look at old Harvard these days, and you'd hardly know it. Thing is, the university is beginning to listen to its own architects.

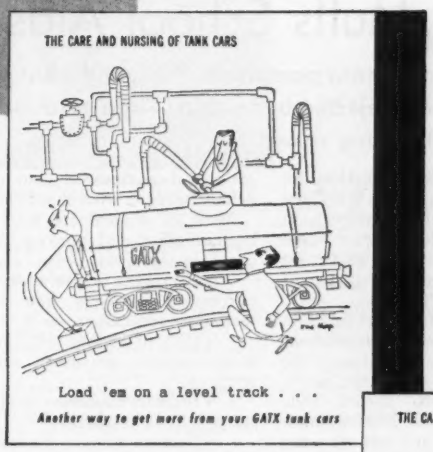
The results are pretty sensational. The place is sprouting modern functionalism, full of glass and curves.

• **Instigators**—The biggest push in the new direction came when the celebrated Walter Gropius came to Harvard as a fugitive from Nazism. Gropius has had unstinting support from such masters of contemporary methods as Joseph Hudnut, dean of the School of Design, and Harvard graduate Henry Shepley of the Boston architectural firm of Coolidge, Shepley, Bulfinch, & Abbott.

Embattled old guard alumni held the line for a while, stoutly defending Harvard's traditional Colonial-Georgian-neo-Colonial style and forgetting all about such mavericks as Sever Hall and Memorial Hall. Memorial takes some forgetting, too. The 1878 dining hall-Civil War monument caused Henry James to say ". . . great bristling brick Valhalla . . . laurels to the dead and dinners to the living."

Alumni resistance to the modern trend met its Waterloo over the Lamont Library. Thomas W. Lamont had specified that his $1.5-million gift be designed in the spirit of the Harvard Yard. But Shepley convinced him that the library must be "designed for the readers, not for the books."

The library, in 1948, was soon followed by the Graduate Center. Due for completion in 1952 are the Allston Burr Lecture Hall and the Gordon McKay Laboratory of Applied Science.



THE CARE AND NURSING OF TANK CARS
GATX
Drain 'em dry...so that the coils won't freeze and break.
Another way to get more from your GATX tank cars

THE CARE AND NURSING OF TANK CARS
GATX
Always load a car with the outlet valve cap off so that if the valve is leaking, the leak will show up immediately.
Another way to get more from your GATX tank cars

tank cars are in "short supply," too!

During 1951, we have been talking to our tank car users through the business papers, by means of advertisements—each of which has emphasized some little point, perhaps overlooked, whereby better use can be made of tank cars. Some of these advertisements are shown here, reduced in size, of course. While these advertisements cannot be expected to work a miracle and produce plenty of tank cars for all requirements, we hope that the messages they bear are of some service to all tank car users having to "make do" with not enough cars.

GATX GENERAL AMERICAN TRADE MARK

GENERAL AMERICAN TRANSPORTATION CORPORATION

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District Offices: Buffalo • Cleveland • Dallas • Houston • Los Angeles • New Orleans • New York Pittsburgh • St. Louis • San Francisco • Seattle • Tulsa • Washington

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You'd have experience too

—If You Moved a Plant once a week for 30 YEARS

Are you qualified to make that major decision on the location of your new plant?

How can you be sure you are right? How can you be sure you've checked all the many factors—the danger points involved? Where can you find the experience—the scientific approach—the unbiased, unprejudiced recommendations?

We provide that experience—based on 30 years of specialization. We analyze your needs. We investigate every corner of the country. We make a scientific, unbiased selection with thoroughly documented recommendations.

For information about this low-cost location insurance, write nearest office for booklet, "Scientific Plant Location."

FANTUS FACTORY LOCATING SERVICE

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Empire State Bldg.
Lackawanna 4-7347

CHICAGO
139 N. Clark St.
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TRY OUT YOUR PLASTIC IDEAS

PILOT RUNS of SMALL PLASTIC PARTS AT LOW COST

On special machines of our own design, we can mold a sample run of any small part with a die cost one-tenth what you might expect. You can give your product a market test with true molded plastic components which we can produce in quantity at even more attractive prices. We successfully produce, in difficult materials such as Nylon and Kel-F, various components that must be held to the closest possible tolerances. *Call or write.*

STANDARD PLASTICS CO., INC.
62 Water St., Attleboro, Mass.
New York Office: 303 Fifth Ave.

MANAGEMENT

Industry Muffs School Aids

Study shows many pamphlets, films, and other promotional materials are rejected by teachers—too much advertising, not enough teaching value.

Industry for years has budgeted a lot of money—often as much as $200,000 a year—to place teaching materials in the schools. This week a report based on a two-year study showed that a lot of industry's dollars are going straight into classroom wastebaskets.

The American Iron & Steel Institute hired Hill & Knowlton, public relations consultants, to make the survey. The study covered all the pamphlets, maps, charts, essay contests, movies, slide films, and similar media used by industry to gain goodwill and put its point over. L. Warren Nelson, a former schoolteacher, directed the research staff.

• **Consensus**—Nelson's research staff interviewed over 800 teachers and top-level educators all over the country. They studied 4,000 questionnaires that teachers took the trouble to fill out. The evidence was overwhelming:

• Much of the material offered to the schools by industry is too difficult in concept, style, and vocabulary. Pupils can't understand it.

• It contains too many advertising plugs.

• A lot of it is biased. There's no clear distinction between facts, opinions, and assumptions.

• Some of it is just plain dull.

• **Cases**—Teachers cited examples of what happens to some of the material they get: In one case, a big midwestern company spent thousands of dollars on a film explaining history from the economic point of view. Almost without exception, schools threw it out. The reason: It was heavily slanted. (One sample: The fall of the Roman Empire was blamed entirely on government interference.)

In another case, one school system in Indiana ordered abnormal quantities of a certain company's pamphlets. Flattered but curious, the company finally checked up, found most of the booklets stored in classroom closets. It seems that the teachers had been doing a bit of apple-polishing after their superintendent had recommended the materials. P. S.: It wasn't funny to a company that had spent a lot of money on the pamphlets.

• **Want List**—Practically all teachers responding in the survey were eager to get help from industry, but they had definite ideas on what should be offered.

Most in demand are field trips to business offices and factories. After that come, in about this order:

• Guidance in surveying job opportunities; speakers from industry; earn-learn programs.

• Help in working out school problems—budgets, publicity, community relations.

• Industry-education conferences for benefit of teachers.

• Factual material for classrooms.

Essay contests, one of the traditional ways business tries to participate in school programs, were at the tail-end of the list. Many schools still use them, but there's a growing feeling among teachers against any type of prize contest.

• **Guideposts**—The educators gave these tips to business on how to set up an effective school aids program: (1) The projects should be taken away from advertising and promotion departments and carried out instead by top-level officers; (2) management should consult educators before deciding on a program; (3) follow-up studies should be made to find out if sponsored material is being used.

• **Some Good Ones Now**—Not all teacher comments were unfavorable. Many examples of successful projects were cited. They all have this in common: They are primarily aimed at educating, with publicity and goodwill as incidentals.

Particularly there is room for more good films—75% of teachers in the Hill & Knowlton survey spoke of this need. They were thinking of such films as those distributed by General Mills, AT&T, U. S. Steel, and the widely used film on feminine hygiene made by International Cellucotton Products Co.

Teachers also want study packets like those of Coca-Cola Corp. and United Fruit Co. Coca-Cola's booklets have nothing to do with its own product. They cover such industries as steel and lumber. United Fruit uses its chief product—bananas—to explain biology, geography, transportation, marketing, world trade. But the emphasis is on those subjects, not on bananas or on United Fruit Co.

George W. Mitchell, President
Lloyd E. Mitchell, Inc., Baltimore, Md.
Photo by Fabian Bachrach

"Things have quieted down in Baltimore!"

says: GEORGE W. MITCHELL*

OFFICES that used to be filled with clatter and jangle are now *quiet*—thanks to Mitchell and his staff of sound-control engineers. For example, to quiet the Aetna Life Insurance Company office, shown below, they selected and installed Gold Bond Econacoustic, made by National Gypsum Company.

Wherever you are, there's a man like George W. Mitchell nearby to quiet things down for you. He's your local Gold Bond Acoustical Applicator, who will show you all *six* Gold Bond Sound Control Products... and recommend the one which is best suited to your job and your budget.

Gold Bond Econacoustic Hushes Noise and Decorates... in *ONE* Operation

Gold Bond Econacoustic gives more value per dollar than any other sound-control material on the market. It is acoustically efficient, yet unobtrusive. It may be installed in new construction, or applied right over existing ceilings... without disrupting your normal office routine. Because Econacoustic is pre-painted at the factory, no further decoration is necessary. When the last tile is in place the job is done, and your office is a quieter, more efficient and more healthful place to work. If you'd like to receive the Decibel Magazine—"Close-Ups of Sound Conditioning at Work"—just write us and we'll see that you are placed on the complimentary list.

FOR FREE SOUND CONDITIONING ESTIMATE... PHONE YOUR LOCAL GOLD BOND APPLICATOR

Central Roofing Co.	*Abilene, Texas*
Lydick-Browne Roofing Co.	*Albuquerque, N. M.*
E. L. Thompson Acoustics, Inc.	*Atlanta, Ga.*
Lloyd E. Mitchell, Inc.	*Baltimore, Md....*
DeFrances Marble & Tile Co.	*Baton Rouge, La.*
J. F. Ryan Company	*Billings, Montana*
Badham Insulation Co., Inc.	*Birmingham, Ala.*
Rees Acoustical, Inc.	*Buffalo, N. Y.*
Dillaby Fireproofing Co.	*Cambridge, Mass.*
Acoustical and Floor Tile Co.	*Champagne, Ill.*
J. M. Sutler Acoustical Co.	*Charleston, W. Va.*
A. A. Metts Co.	*Charlotte, N. C.*
Fisher-Busse Co.	*Chicago, Ill.*
National Sound Control Co.	*Cincinnati, Ohio*
H. A. Erf Acoustical Co.	*Cleveland, Ohio*
South Texas Materials Co.	*Corpus Christi, Texas*
Acoustic Builders Specialty Co.	*Dallas, Texas*
Myron Cornish & Co.	*Dayton, Ohio*
John C. Reeves & Co.	*Denver, Colorado*
H. N. Wiklund & Co.	*Des Moines, Iowa*
Turner-Brooks, Inc.	*Detroit, Mich.*
Lee Building Specialties Co.	*Eau Claire, Wis.*
General Insulation Co.	*Evansville, Ind.*
Lydick Roofing Co.	*Fort Worth, Texas*
Healey & Popovich	*Fresno, Calif.*
Industrial Sound Control, Inc.	*Hartford, Conn.*
Humphreville & Gillman, Inc.	*Houston, Texas*
General Asbestos & Supply Co.	*Indianapolis, Ind.*
Best Interiors, Inc.	*Jackson, Miss.*
Jacksonville Tile Co.	*Jacksonville, Fla.*
Eustis Lancaster Associates	*Johnson City, Tenn.*
Cockerell Engineering & Fireproofing Co.	*Kansas City, Mo.*
Tennessee Structural Products Corp.	*Knoxville, Tenn.*
Acoustical Engineering Co.	*La Crosse, Wisconsin*
Crawford Door Sales Co., Inc.	*Little Rock, Ark.*
The Sound Control Co.	*Los Angeles, Calif.*
Braun Acoustical Co.	*Louisville, Ky.*
Southwest Specialty Co.	*Lubbock, Texas*
Alexander Marble & Tile Co.	*Memphis, Tenn.*
Acoustical Contracting Co.	*Merrill, Wis.*
Rowell Flooring Company	*Miami, Fla.*
Acoustical Sales & Engineering Co.	*Miami, Fla.*
Schauer Co., Inc.	*Milwaukee, Wis.*
R. R. McGregor & Associates	*Minneapolis, Minn.*
Building Specialties Co.	*Moorhead, Minn.*
Moran & McGoey, Inc.	*New Orleans, La.*
National Acoustics	*New York, N. Y.*
Febre & Co.	*Norfolk, Va.*
Acoustical Sales & Plaster Co.	*Oklahoma City, Okla.*
Porter Trustin Co.	*Omaha, Nebraska*
Pearson Insulating & Dist. Co.	*Pharr, Texas*
Chas. M. Wall, Inc.	*Philadelphia, Pa.*
Standard Floor Co.	*Pittsburgh, Pa.*
Northwest Sound Control Co., Inc.	*Portland, Ore.*
McL. T. O'Ferrall & Co.	*Richmond, Va.*
Johnson-Olson Floor Coverings, Inc.	*Rockford, Ill.*
Utah Pioneer Corp.	*Salt Lake City, Utah*
Heat Control Insulation Co.	*San Antonio, Texas*
Morrison-Hope Co.	*San Bernardino, Calif.*
Asbestos Products Co.	*San Diego, Calif.*
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Midwest Acoustical Co.	*Sioux Falls, S. D.*
Queen City Wood Works & Lumber Co.	*Springfield, Mo.*
Missouri Builders Specialty Co.	*St. Louis, Mo.*
Noffke Bros. Marble & Tile Co.	*Terre Haute, Ind.*
Midwest Marble & Tile Co.	*Tulsa, Okla.*
J. F. Kelley Co.	*Warsaw, Indiana*
A. W. Lee Co.	*Washington, D. C. (Arlington)*
Northern Steel Buildings, Inc.	*Watertown, N. Y.*
Todd-Roberts Insulation Co.	*Wichita, Kans.*
Lydick Roofing Co.	*Wichita Falls, Texas*
Wester Acoustical & Insul. Co.	*Youngstown, Ohio*
CANADA: William G. Kerr	*Toronto, Ontario*

PHONE FOR YOUR FREE SOUND CONDITIONING ESTIMATE NOW

Why put up with work-slowing office noise a day longer? Call your local Gold Bond Applicator today! He's listed in the Classified Section under "Acoustical Contractors." Or write Department BW-91, National Gypsum Company, Buffalo 2, N. Y.

You'll build or remodel better with

Gold Bond Acoustical Products

NATIONAL GYPSUM COMPANY • BUFFALO 2, N. Y.

On Battle Roads or Highways
ELASTIC STOP NUTS
Guarantee Tight Fastenings

Rough terrain and rough handling are hazards to the world famous military 'Jeep'. That's why Willys builds its 'Jeeps' and other vehicles with Elastic Stop Nuts at important points to eliminate fastener failures due to vibration.

In this vehicle the famous Red Locking Collar of the Elastic Stop Nut holds firm against vibration—reduces maintenance—on vital applications such as: accelerator hinge, universal joints, body hold down, spring shackles, radiator hold down, and air cleaner. The Red Collar grips bolt threads firmly—protects against vibration, impact, and stress reversal—prevents freezing of nuts to bolts by protecting internal bolt threads against corrosion.

Check the advantages of Elastic Stop Nuts against any other type of self-locking fastener. You'll find that only ESNA offers a complete line of thread sizes and varied nut types engineered to simplify your assembly line fastening problems and to provide your customers with maintenance-free operation.

Whether you are manufacturing equipment for rough military use or designing better performance and easier maintenance into equipment for your normal market . . . use vibration-proof fasteners. Now is the time to get full information. Write for complete product line bulletin to Elastic Stop Nut Corporation of America, 2330 Vauxhall Road, Union, N. J.

DESIGN AHEAD WITH ESNA

THE FAMOUS RED ELASTIC COLLAR IS VISIBLE EVIDENCE OF LOCKING SECURITY

Threadless and permanently elastic, it provides these 4 outstanding features:

1. **Protects against nuts loosening due to VIBRATION**
2. **Keeps locking threads CORROSION FREE**
3. **Provides for accurate BOLT LOADING**
4. **Seals against LIQUID LEAKAGE along the bolt threads**

And can be used again and again

ESnail® ESNA ROLLPIN

ELASTIC STOP NUTS

DESIGN HEADQUARTERS FOR SELF-LOCKING FASTENERS.

T. R. MULLEN figured how to . . .

Save by Giving

Lehigh Valley Steel started talking a 5% plan two years ago, set up foundation to use charity tax deductions.

A few weeks ago the National Planning Assn. published a pamphlet, "The Five Percent," by Beardsley Ruml and Theodore Geiger (BW—Aug.18'51,p28).

Now it has learned that a small Allentown (Pa.) company had the jump on it two and a half years ago.

• **Gift Advantage**—Since 1949 Thomas R. Mullen, president of Lehigh Valley Structural Steel Co., has been preaching the advantages to business of spending the full 5% of profits (before taxes) that the law allows for educational and charitable contributions. He has his own case to back him up.

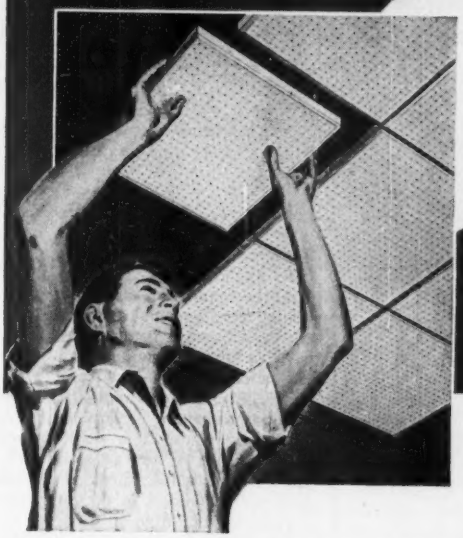
In the past two years, Lehigh Valley Steel through a company-operated nonprofit foundation has given away about $60,000 of the company's donations ($90,000 in all). That's a pretty hefty chunk of money to come out of profits on the $10-million annual sales volume that Lehigh rings up.

But Mullen thinks it's worth it, in goodwill alone. And he figured out over two years ago that, with tax rates where they are, Uncle Sam pays most of the freight. He's been an evangelist for the 5% plan ever since.

• **How It Works**—Under the tax law, a company can deduct 5% of its earnings before taxes for contributions. Prewar, at the 19% corporate tax rate, that meant companies had to put up $81 for every $100 they gave away. Today the ratio is reversed, especially for com-

All this noise is driving away business!

Then drive away the noise with FIBRETONE* Acoustical Ceilings!



Learn how easily Johns-Manville Fibretone Acoustical Ceilings can be installed to cut down distracting noise, increase efficiency, create better customer relations!

● Because distracting noise is so harmful to efficient business operation, practically all new building specifications include acoustical ceilings for sound absorption. However, just because your present building was constructed before sound control became an established science, there is no reason for you to be handicapped by noise. You can have a Johns-Manville Acoustical Ceiling quickly installed over your present ceiling.

Johns-Manville FIBRETONE offers an acoustical ceiling which is highly efficient and modest in cost. It consists of 12" square panels of sound-absorbing materials in which hundreds of small holes have been drilled. These holes act as "noise traps" where sound energy is dissipated. Fibretone is predecorated, can be painted and repainted, and is available with a flame-resistant finish.

Other Johns-Manville Acoustical Ceilings include *Permacoustic**, a textured, noncombustible tile with great architectural appeal; *Transite**, panels made of fireproof asbestos; and *Sanacoustic**, perforated metal panels backed with a noncombustible, sound-absorbing element.

For a complete survey by a J-M acoustical expert, or for a free book entitled "Sound Control," write Johns-Manville, Box 158, Dept. BW, New York 16, N. Y. In Canada, write 199 Bay Street, Toronto 1, Ontario.

*Reg. U. S. Pat. Off.

JOHNS-MANVILLE JM PRODUCTS

Johns-Manville

Movable Walls—Terraflex and Asphalt Tile Floors—Corrugated Transite*—Flexstone* Built-Up Roofs—Etc.

IN a little more time than it will take you to read these paragraphs, this 105mm gun will have cradled comfortably to earth... ready for instant action. And in little more time than that, its gun crew... will have instantly needed firepower.

The dependable C-119 Packet is the post-war high-point of Fairchild research and development in the field of all-purpose transports. Only aircraft specially designed to do the job, could perform these functions to such maximum advantage.

Packets, specially engineered and ruggedly constructed to meet the needs of our unified air and ground forces, are proving themselves in varied military operations throughout the world.

ENGINE AND AIRPLANE CORPORATION
FAIRCHILD
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Aircraft Division, Hagerstown, Md., Chicago, Ill.
Guided Missiles, Stratos and Engine Divisions, Farmingdale, N. Y.

panies that fall in the 77% top tax bracket.

Ruml's thesis is that it's good business to use the full 5% for contributions, since a company is really spending only 23¢ dollars. The rest comes from the Treasury's tax pocket.

This is the same argument Mullen has been using in letters to businessmen, to trade associations, in magazines, articles, and in company-printed pamphlets. He's glad now that someone else has picked up the ball.

• **The Start**—The idea really jelled in Mullen's mind after he gave $25,000 to Duke University as a memorial to his son. Later he set up the Robert L. Kift-Thomas R. Mullen Jr. Memorial Foundation, a nonprofit charitable organization incorporated in Delaware. It is run by officers of the company.

For the past two years, Lehigh Steel and its subsidiaries have donated the full 5% before taxes to the foundation. This year the foundation will pay out about $28,000 to about 50 organizations. In 1950 the figure was $32,000. The foundation still has a $30,000 kitty in reserve.

• **For Education**—Most of the money is used for education. That's Mullen's pet theme. He says business has a big stake in seeing that schools get enough funds to keep going. The 5% scheme is a cheap way to do it.

This year's list of Kift-Mullen donations includes eight colleges. In addition, the foundation takes over most of Lehigh Steel's general donations to hospital and charity organizations. It also pays for special community projects.

• **Foundation Best**—Like Ruml, Mullen thinks setting up a foundation is the best way to handle a 5% plan. For big companies whose 5% would provide enough funds to hire a special staff, a foundation can take the load off management's shoulders in deciding where the money should go.

For companies the size of Mullen's, a foundation assures continuity of donations that otherwise might not be possible because of profit fluctuations. Lehigh already has found that out. Current contributions will exceed its payments to the foundation during 1950—a relatively poor profit year for the company. But the backlog from the year before will make up the difference, and still leave funds for investment.

• **Others Follow**—So far, a number of companies have told Mullen they are creating 5% foundations on the strength of his two-year campaign. But he won't be satisfied until more of the big firms go along with the idea. Right now he has the chairman of the board of an auto company on his side. All that's needed: to sell the board of directors. If that company finally makes the move, Mullen thinks a lot of others will fall in line.

. . . turning wings into fuel tanks

With the increased operational range of the modern airplane, up to *three tank cars* of fuel may have to be carried. Such capacity involves a real problem in design. One answer is the "integral wing tank" where large sections of the wing become integral fuel tanks. Working closely with aircraft engineers, 3M developed a sealer that closes the cracks and crevices, tightly sealing the fuel space.

Consider the requirements such a sealer must meet. It must adhere perfectly to the metal under severe service conditions. It must resist rapid and extreme changes in both pressure and temperature. It cannot crack or lose adhesion with wing flex nor can gas or oil change its properties.

3M integral fuel tank sealers are only one specialized type of adhesive . . . and the development of many such compounds for all industry is a specialty of 3M.

See what adhesives can do for you . . .

WRITE FOR 3M'S 32-PAGE BOOKLET ON ADHESIVES, COATINGS AND SEALERS. IT'S FILLED WITH INTERESTING INFORMATION AND EXAMPLES OF SUCCESSFUL APPLICATIONS IN ALL INDUSTRIES. ADDRESS YOUR REQUEST TO 3M, DEPT. 19, 411 PIQUETTE AVE., DETROIT 2.

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MUSIC

SCHOOL BANDS have sprung up almost to the saturation point. Campaign for more music-making is now shifting to orchestras.

Music Industry Cashes In By Blowing Its Own Horn

Those noises from the music classroom may make even a fond parent wince, but they're music to the ears of America's instrument manufacturers and salesmen. The painful synthesis of Anchors Aweigh in thousands of schools is one of the big reasons why the music business is booming today.

Since the war, the number of school

TEACHERS LEARN the use of paper piano keyboard, then . . .

PUPILS LEARN piano fingering on the marked dummy keyboards.

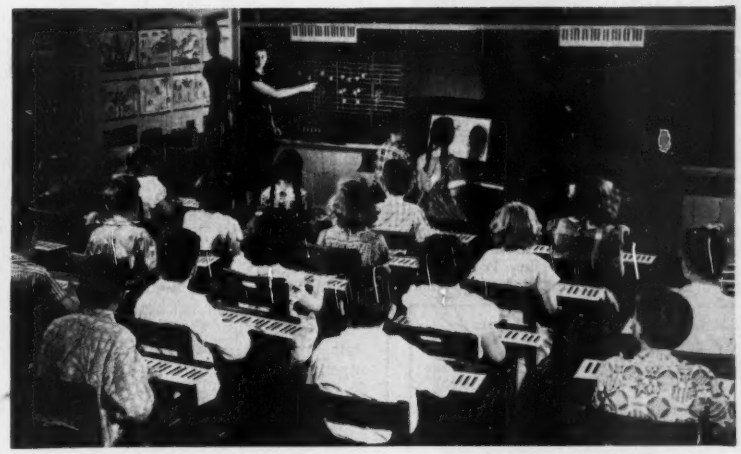
GETTING 'EM YOUNG starts in primary school with simple percussion instruments.

bands has grown by 40%, and the number of school orchestras by an even greater percentage. The band figure is the big one. The American Music Conference, the industry's promotion agency, estimates there are now about 31,000 school bands and 15,000 school orchestras in the U. S.

Adult longings to make music are also finding new outlets. There are now more than 700 community orchestras, almost entirely amateur; before the war there were fewer than 50.

• **Four Reasons**—The industry attributes its market growth to a number of factors:

• The continuing effect of radio, which since the 1930's has brought



WHOLE CLASS takes part in next step, most using keyboards while two sit at piano.

When you think of Pittsburgh's

NEW BUSINESSES...

Over a hundred firms have located new plants or other operations in the Pittsburgh district since 1947—and many of them have selected Peoples First National to handle their Pittsburgh banking needs.

If you're thinking of joining the "Parade to Pittsburgh," Peoples First National will welcome the opportunity to serve you with the complete facilities of one of the nation's largest banks . . . with 18 banking offices which conveniently place these facilities in principal industrial and commercial areas of the city . . . with alert, progressive management that co-operates with you on every financial problem. Our officers will be glad to give you complete information.

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Get worlds away from business pressure with a Leica camera for a simple and rewarding hobby. It's easy to start on, to shoot with, to grow with . . . easy to enjoy at *any* time. Small, light and compact, it *literally* "takes a load off your shoulders." And with it you can count on the most satisfying *results* in any kind of photography. The versatile Leica is a product of the same precision craftsmanship found in famous Leitz microscopes used in atom research. See your Leica camera dealer.

For business too . . . Look into the Leica and other Leitz products for the best solution to many commercial and industrial problems, as well. Write for information, to Dept. BW.

E. LEITZ, Inc., 304 Hudson St., New York 13, LEICA CAMERAS AND ACCESSORIES
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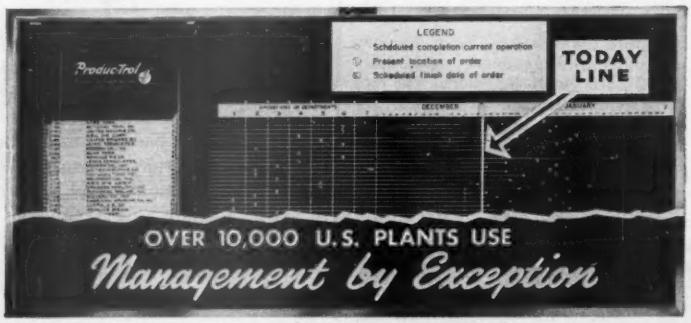

Why look at 100 situations when only two or three need attention? Are you always immersed in detail . . . or do you know exactly which orders call for your personal attention each day? "Management by Exception" eliminates the impossible job of riding herd on every order. It's the cardinal principle of Management by Exception that only the "exceptions to routine, plan, or schedule" — the lagging orders — really need top executive attention.

All Bad Situations Show Up Instantly

The Wassell PRODUC-TROL Control Board, as used successfully in over 10,000 plants, is Management by Exception at its best. One quick glance at PRODUC-TROL shows up each lagging order instantly. Bad situations are represented by the "Progress Tape Pegs" at the left, or "danger zone," of the heavy vertical "Today Line." These pegs spotlight the exceptions to on-schedule production. Only these require executive action in Management by Exception. Progress Tape Pegs at the right of the Today Line indicate orders on schedule, still subject to routine control.

PRODUC-TROL controls ALL orders — Purchase, Engineering, Tooling, Machine Loads, Parts for Assembly. Write today for the eight-page brochure, "How to Improve Your Order Control."

Wassell Organization Inc.
Westport 3, Conn.

Without obligation I would like brochure "How to Improve Your Order Control."

NAME .....

POSITION .....

(Please attach to, or write on, your *business* letterhead)

". . . The best place to stir up interest in music is in the schools . . ."

MUSIC starts on p. 70

music to more people than at any previous time in history.

• Increased interest in all kinds of adult education, with music benefiting along with other arts and crafts.

• A trend away from passive spectator's attitudes toward individual participation.

• The industry's own promotion efforts through the Music Conference.

• **Creating a Market**—The American Music Conference was set up in 1947 (BW—Jun.14'47,p20) to try to reverse a downward trend of sales. Six trade associations representing all segments of the industry, from manufacturer to retailer, kick in with $100,000 a year to finance the work.

The promotion program is based on a long-range idea: Stir up the public's interest in music, and you'll develop markets for musical instruments. Very early the conference decided that the best place to do its stirring was in the schools. So it pinpointed its campaign on promoting more and better music teaching.

That idea in itself is not new. For years, individual band instrument companies had been picking away at this field, school by school, lending first-year teaching aid for new bands in return for instrument orders. The Music Conference systematized and expanded this approach, gave it a firmer basis by arousing grassroots demand for bands and orchestras.

• **High Mark in Sales**—With its "get 'em young" theme song, the industry will have captured more than $300-million in retail sales by yearend. Pianos—big-tag items—will account for at least half of the dollar volume, with band instruments second.

Sales in 1950 were reported by National Assn. of Music Merchants at about $235-million. The best postwar year up to now was 1948, when sales reached $250-million. Just before the war, sales were running at $81-million (1939) and $90-million (1941).

• **Juvenile Market**—Almost 90% of band instrument sales nowadays are to school children. And 65% of pianos are sold for children's home instruction and to private music teachers.

American Music Conference has four staff members working with school superintendents and music teachers in 38 states and the District of Columbia. The conference has sponsored piano workshops for music teachers to bring them the most modern teaching techniques. Approximately 2,000 teachers

In the Eastman Kodak Company's continuous "photo silver" process, 75-pound ingots—99.97% pure silver—now are dissolved in ENDURO *containers. Silver nitrate crystals are formed and grown in 1000-gallon* ENDURO *tanks, spun in* ENDURO *baskets, dried in a few minutes in* ENDURO *dryers, and packed in stainless steel barrels.*

ENDURO makes continuous "photo silver" process practical

● Not long ago, silver nitrate crystals—basis for modern photography—were produced by dissolving silver in nitric acid, then evaporating the resultant solution in open porcelain dishes.

It was a picturesque process...but mighty slow. Materials had to be moved by hand. Evaporation and drying took several days. Huge film demand made an improved process imperative.

Utilizing ENDURO Stainless Steel, Eastman Kodak Company chemists and engineers developed this faster, safer continuous process. Here, ENDURO resists the action of the nitric acid which dissolves 75-pound silver ingots. And, it protects the purity of the silver salts. ENDURO does not contaminate metallically; it resists rust and corrosion; it's remarkably easy to clean and to keep clean.

Have you a special problem—in process or product? Republic—world's largest producer of alloy and stainless steels—offers you the confidential services of its technical, metallurgical and machining staffs. Your letter will bring prompt and competent assistance on any future development work involving the use of stainless steels. Just write:

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ARE YOU **GOOD**

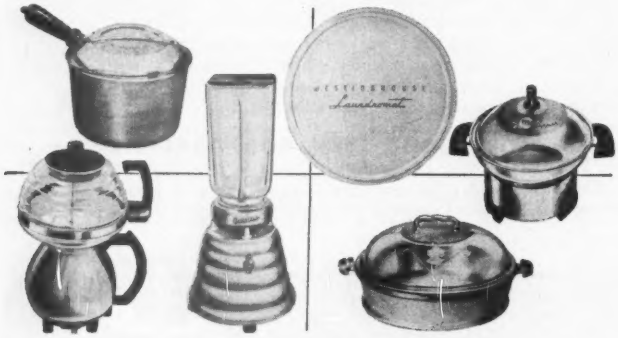
When You Have to Be?

One time you have to be good is when you have to beat competition even though materials for *your* product are on the critical list.

That's when it's good to know that McKee glass can probably help you as it has helped many of America's best known manufacturers.

Very often McKee glass can be used in place of critical materials. In fact, in replacing other materials, McKee glass often improves the appearance and utility of products while lowering costs.

McKee makes many kinds of commercial glass for practically every kind of application. McKee has the facilities to meet your production needs . . . the long experience to help you fit glass into your operations. Write or call for specific information concerning your problems.



McKEE
GLASS COMPANY
McKEE PARK
JEANNETTE PA. • ESTABLISHED 1853
Makers of the World's Most Complete Line of Glass Cooking Ware

". . . It's hard to keep up with the demand . . ."

MUSIC starts on p. 70

attended the 23 workshops held during the past year.

In 1949 more than 450 school systems added piano classes to their curricula, at least in part as a result of the Music Conference's "comparative analysis" of their music offerings.

• **Visual Aids**—Besides sponsoring workshops, the conference has produced and circulated two slide films in color. One is directed at arousing adult support of music education programs, the other at stimulating interest in music among elementary school children. The first film has had 909 showings, the second 862, through the group's circulating film library. An additional 70 prints of the slide films have been sold to school systems, music dealers, and other groups.

In the three years since its organization, the conference has distributed more than 800,000 pamphlets, manuals, and reprints of magazine articles.

Staffers have also directed workshops for leaders of Y.M.C.A. and 4-H groups, to build up the place of music in their activities. They have worked with local groups to promote music festivals and other programs.

• **Local Angle**—In many localities, music dealers have tied into the Music Conference program by setting up their own educational-promotional departments, either full-time or part-time. These tie-ins are useful in:

• Helping local schools to present clinics and symposiums for classroom teachers.

• Offering class instruction in piano and other instruments, mostly for learners who don't receive lessons in school.

• Working with parent groups, women's clubs, and civic organizations to promote music education in the public schools.

• **Metals Pinch**—Under mobilization, the instrument industry expects to begin to feel a pinch in metal supplies by early next year. So far, restrictions on critical metals haven't hurt sales, thanks to high dealer stocks.

But in the last quarter of 1951, piano makers face probable cuts of 45% in metal allotments. Band instrument makers expect that by the first of the year materials restrictions will rule out any hope of keeping up with demand. Some retailers already are beginning to buy used band instruments to fill their orders.

Makers of brass instruments are particularly hard hit. Because of the copper shortage, these manufacturers are already limited to 60% of the brass they used in first-half 1950.

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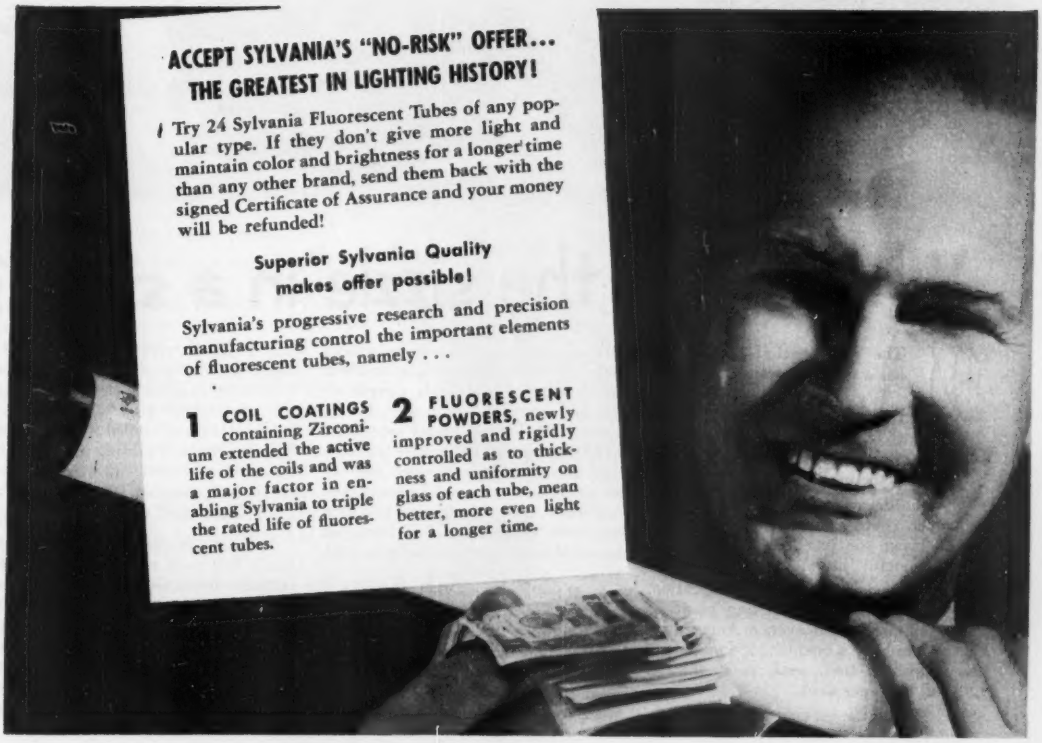
Sylvania guarantees your money back... if you don't agree Sylvania Fluorescent Tubes are the finest you've ever used!



ACCEPT SYLVANIA'S "NO-RISK" OFFER... THE GREATEST IN LIGHTING HISTORY!

Try 24 Sylvania Fluorescent Tubes of any popular type. If they don't give more light and maintain color and brightness for a longer time than any other brand, send them back with the signed Certificate of Assurance and your money will be refunded!

Superior Sylvania Quality makes offer possible!

Sylvania's progressive research and precision manufacturing control the important elements of fluorescent tubes, namely . . .

1 COIL COATINGS containing Zirconium extended the active life of the coils and was a major factor in enabling Sylvania to triple the rated life of fluorescent tubes.

2 FLUORESCENT POWDERS, newly improved and rigidly controlled as to thickness and uniformity on glass of each tube, mean better, more even light for a longer time.

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FLUORESCENT TUBES, FIXTURES, SIGN TUBING, WIRING DEVICES; LIGHT BULBS; RADIO TUBES; TELEVISION PICTURE TUBES; ELECTRONIC PRODUCTS; ELECTRONIC TEST EQUIPMENT; PHOTOLAMPS; TELEVISION SETS

WILL REFRIGERATION improve a food process? Or step up a vital defense operation? Will better industrial air conditioning increase usable space—cut manufacturing corners? Want ice in a better, more economical form? Call in York for creative engineering and a skilled application.

What keeps the "sizzle" in a steak?

The "sizzle" of that sizzling steak has a *special* meaning.

It's more than merely sputter. It's come to mean "flavor" plus a wealth of hidden nutrients kept right there from the very day the steer reached the packing plant.

One dramatic fact, more than any other, enables America's meat packers to bring you fine fresh meat with a meaningful "sizzle"... Refrigeration...

Because of adequate refrigeration, all the way from packing plant to retail market, the average American is able to have a bountiful 2½ pounds of nourishing beef, veal, pork, mutton and lamb per week.

There's the packing plant chill room, for example, where refrigeration rapidly chills the freshly dressed meat to about 36° F. and the cold air is completely changed every 30 to 120 seconds . . . There's the holding cooler where the meat is properly aged, where temperature must also be controlled and the air circulation rate must be gentle and uniform . . . And the freezer, and storage room, where meat of all kinds can be stored in proper condition for months.

Here's where York helps

York supplies America's packers with refrigeration equipment from giant turbine-driven systems down to packaged refrigeration units like those at work for your favorite butcher shop.

Right along with York's unchallenged leadership in refrigeration goes York's top position in air conditioning . . . whether the need is an 86-story, 8-inch column of chilled water to cool Empire State Building tenants, a 3,000,000-cubic-foot all-weather Air Force test chamber for planes, or a York "Packaged" air conditioner.

In your classified phone directory you'll find your nearby York Representative listed. Get in touch with him. He is well acquainted with every modern type of refrigeration and air conditioning, and is ably qualified to suggest the equipment exactly suited to the installation you have in mind.

YORK CORPORATION, YORK, PA.

The big advances come from

YORK

Air Conditioning and Refrigeration

Certified Maintenance Service

In these times when efficiency and economy are equally at a premium, have your York equipment serviced by York engineers.

Do this through the York Certified Maintenance Contract. Under its terms our engineers check your York equipment regularly, service it, and report to you in writing . . .

Here's how to pick better vegetables

Let the lady name her choice—lettuce, peas, carrots, beets, broccoli. Whatever—to please the family palates or build glowing health—she'll find *better* vegetables in a bin like this.

What's special about this trim bin? . . . A wonderful kind of ice, called FlakIce Frosty Ribbons, that nestles all around the vegetables . . . FlakIce keeps *down* their temperatures . . . helps keep *alive* their precious vitamins and subtle health-essentials that make them food instead of fodder . . . FlakIce *prevents* shrinkage . . . *avoids* sogginess or that beat-up, *don't-buy-me* look.

What are Flakice Frosty Ribbons?

They are frosty ribbons of ice that come tumbling out of York's sensational and exclusive FlakIce Machine, at the flip of a switch!—in never failing supply—as needed—when needed—all readied to make a bed in a bin! It's ice that's clean and pure. Ice so fragile that it will break before bruising delicate lettuce or the tenderest skin of the juiciest tomato.

When you have a food-saving, dollar-saving York-FlakIce Machine at work for you, there's no more costly handling, crushing, heaving and hauling. This and other special models are now "standard equipment" in hundreds of supermarkets everywhere, in fisheries, on truck farms, in canning and poultry processing plants, in shipping and packing plants, restaurants, hotels, chemical and industrial plants, on huge construction projects, and wherever there is need for a dependable supply of pure ice at lowest cost.

Just as York ice-making equipment is unmatched the world over, the wide variety of York air-conditioning and refrigeration equipment is supreme in the field.

Better refrigeration, air-conditioning and ice-making pay for themselves in short order—a literal statement based on thousands of York case histories. For the specific facts and figures, call in your nearby York Representative. He's listed in your classified phone book. Or write YORK CORPORATION, YORK, PENNA.

THE FLAKICE MACHINE is but one of a growing list of York products, each helping to better business or strengthen defense. Included among these many, efficient, quality products are the York Automatic Ice Maker, and York's world-famous condensing units . . . If cooling is your problem, then York is your answer.

. . . York's Watchful Eye!

. . . all for a nominal, known-in-advance service fee.

York Certified Maintenance assures you of constant peak operating efficiency at lowest operating cost . . . York equipment will be serviced by the Company that built it . . . Consult your nearby York Representative for details.

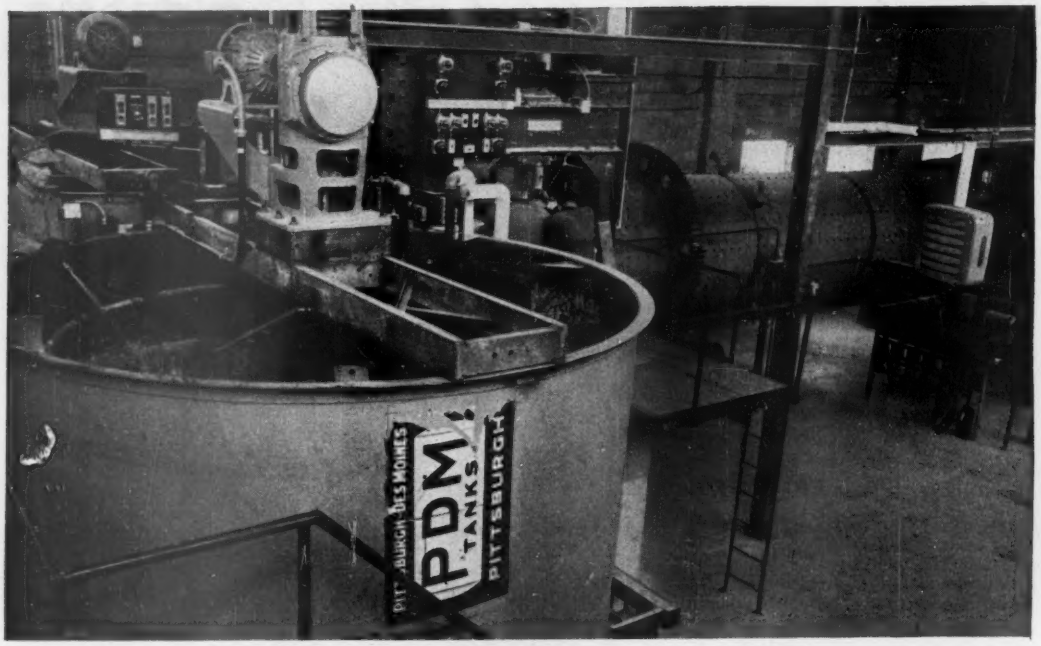
Headquarters for mechanical cooling

YORK

Refrigeration and Air Conditioning

York refrigeration air conditioning

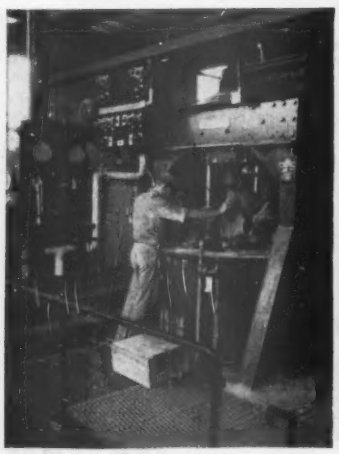
TECHNOLOGY



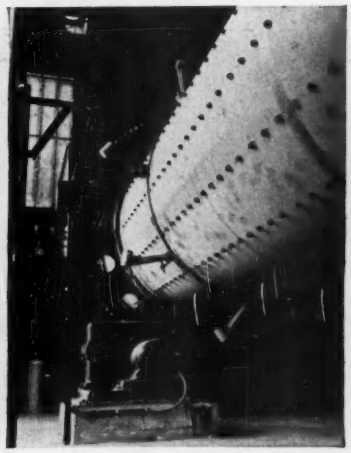
1 In new plant of Ferro Chemical Corp., this big tank is where napalm is actually mixed, after ingredients come from other tanks through metered pipes. Agitator atop tank stirs stuff for an hour before it is ready to be dried.

Napalm-Making Is Mechanized

(Story begins on page 80)



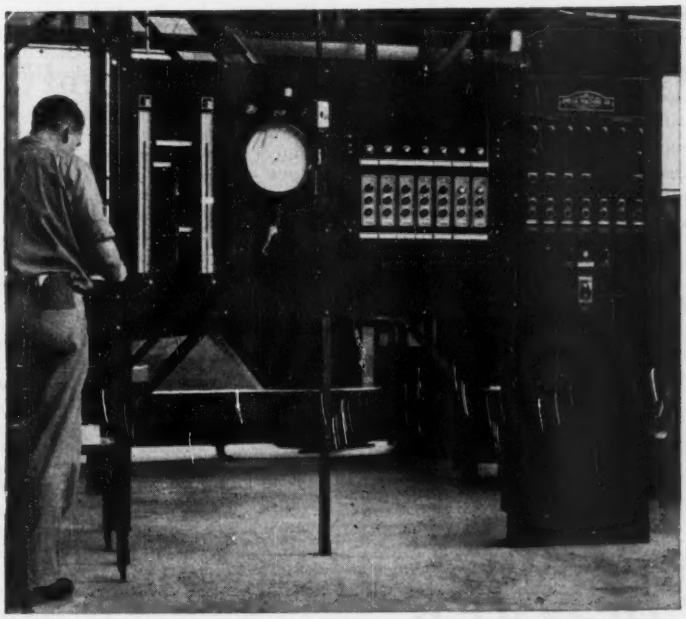
3 First step in drying comes in this centrifuge tank, which has control board with alarm lights and bells.



4 The 40-foot-long, continuous rotary drier extracts all but about .4% of the water by using air heated to 320 F.

5 Interior of drier shows spirals used to elevate napalm, then spill it out through the heated air.

2 Interior of the 8,000-gal. tank shows agitator in action in mixing process. Steam pipes around side of tank keep temperature of material at a constant level.



6 Control boards and warning panels like this are all over the plant to keep track of temperature, mixing.

Just what the Doctor Ordered...

. . . a better way to stop rust of surgical blades

Rejects, due to traces of rust, had to be stopped! Too often exported surgical blades were bouncing back into the lap of the maker — a Connecticut firm, Bard-Parker Company.

All this, in spite of a hot oil bath for the blades following a blast of hot air, then an overwrap of waxed paper. While new machinery was being considered for additional wrapping, Bard-Parker explored the new vapor that stops rust without oil.

Results of laboratory tests quickly focused attention on Angier VPI* Wrap. While control packs of oil-covered blades showed rust spots, blades simply wrapped in Angier's chemically coated paper came through rust free.

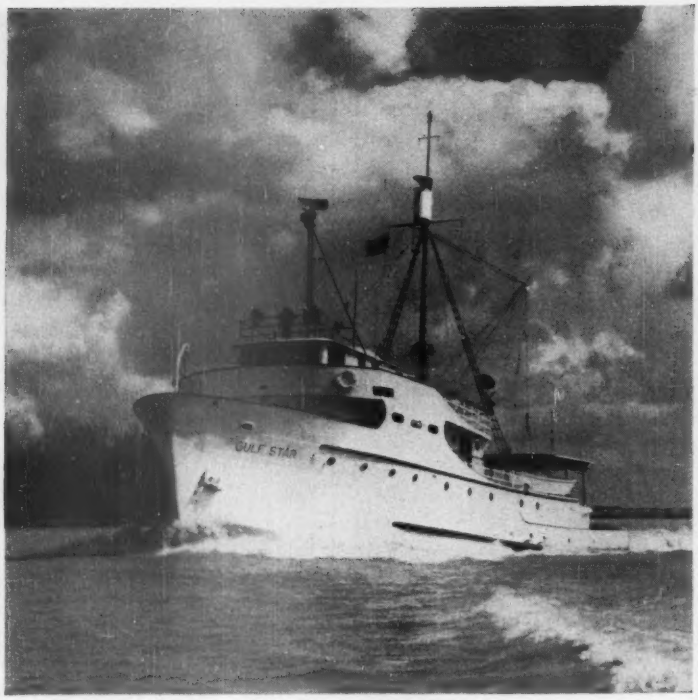
Little wonder overseas customers praise the new vapor pack! No more oil to remove, means no more handling. This assures factory-sharp blades for surgeons. Now rejects due to rust are unknown.

So simple and *clean* is this oilless packaging method, that now VPI protects Bard Parker domestic shipments, too.

Angier—most experienced name in vapor rust preventives—offers research and technical help to *you*. Distributors in principal cities. Write: Angier Corporation, Framingham 7, Mass.

Angier VPI* Wrap

*U. S. Pat. Off. - Vapor Rust Preventive



GARDNER-DENVER

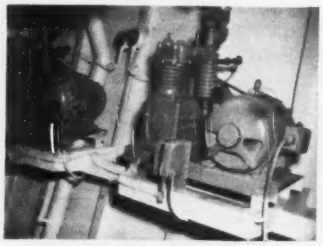
Stands watch...

as the *"Gulf Star"* moves out to sea

This fine new tuna clipper won't come home till her hold is full—perhaps three or four months from now. To make port for repairs would waste precious fishing time and profits—so she's fitted with only the best of equipment.

That's why her owners and builders chose Gardner-Denver Air Compressors for starting her diesel engine. They knew they could trust Gardner-Denver quality for reliable, trouble-free service at sea.

In your business, too, whether it's large or small, you'll find it pays to trust Gardner-Denver quality wherever you need compressors, pumps, rock drills or other pneumatic equipment. Gardner-Denver Company, Quincy, Illinois.



Two Gardner-Denver ADD Two-Stage Compressors furnish dependable diesel engine starting air aboard the "Gulf Star."

SINCE 1859

GARDNER-DENVER

THE QUALITY LEADER IN COMPRESSORS, PUMPS AND ROCK DRILLS

". . . the investment has paid off handsomely for Ferro . . ."

NAPALM pictures start on p. 78

Thanks to mechanization, at least one defense item is costing the U. S. taxpayer a lot less today than in World War II. In those days napalm—the substance used to jelly gasoline for fire bombs and flame throwers—cost the government about 98¢ per lb. This week the price is running around 40¢.

• **New Plant**—Mainly responsible for this change is a brand-new plant in Cleveland, which mixes napalm almost automatically (pictures, pages 78-79). Built and operated by Ferro Chemical Corp., wholly owned subsidiary of Ferro Corp., it has a rated capacity of about 1-million lb. per month. If necessary, it can boost that output by 25%.

Napalm production isn't new to Ferro. The company got into it in 1942, after a hurry-up call from the government. The best Ferro could do then to meet the schedule was to put in a hastily rigged-up plant. There was so much hand work in measuring, drying, and packing the ingredients that the company could turn out only 200,000 lb. per month.

• **The Big Hunch**—In August, 1950, vice-president Stanley B. Elliott went to president C. D. Clawson of Ferro Corp. Said Elliott: It was obvious that the nation's military needs would become paramount in the U. S. economy. Therefore, Ferro should build a new plant that could produce in good quantity either napalm or octel (also used for jellying gasoline).

It didn't take long to persuade the board that this was a sound idea. It approved an investment of $300,000 for a new plant, and work on it got under way. Just a year later, the plant was ready. Elliott's hunch had been right: By that time the government was once more desperate for napalm. The plant opened right away, is operating 24 hours a day, seven days a week. It is so nearly automatic that the only labor force needed is nine factory employees (three to a shift) and one supervisor.

• **The Manufacture**—Ferro uses four major steps in the manufacture of napalm: (1) making sodium soap in one tank; (2) making an alum solution in another; (3) mixing the two in the napalm "strike"; and (4) drying the solution of almost its entire water content. The raw materials consist of cocoanut fatty acid, oleic acid, and naphthenic acid.

Under the old system, measuring out these ingredients had to be done entirely by hand. Now it's done automatically. The three acids are stored

The thief that lurks behind every sheet of paper

BE mighty suspicious of that sheet of paper you pick up. It might *look* innocent enough. But behind it might be hidden the dagger of the Paperwork Pirate—a most dangerous profit thief.

Millions of dollars annually are lost to the Paperwork Pirate. But this need not happen in your company. You can simplify your paperwork procedures through mechanizing the Multigraph way.

Multigraph production machines for business records can save scarce man-hours in purchasing, order-billing, production control, material control, shipping—in fact every department of business.

Anything you want to reproduce—be it typed, handwritten or printed material, drawings or photographs, or any combination—can be done faster and without error. You write just *once* on the low-cost, paper-like Multilith Duplicating Master. Then blank paper is quickly changed into a half dozen, hundreds, or thousands of permanent copies of business forms—complete with written information—in black or colors. And each copy is a sharp, clear original.

Count the time it takes in minutes, the cost in pennies. You save the expense of large stationery stocks, the waste of outdated items.

Let us help you banish needless clerical expense. Call the local Multigraph office or write Addressograph-Multigraph Corporation, Cleveland 17, Ohio—Simplified Business Methods.

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Production Machines for Business Records

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"Gunnison," "Coronado" and "Champion"—T.M. Gunnison Homes, Inc.

OLD METHOD of napalm-making required measuring and dumping by hand.

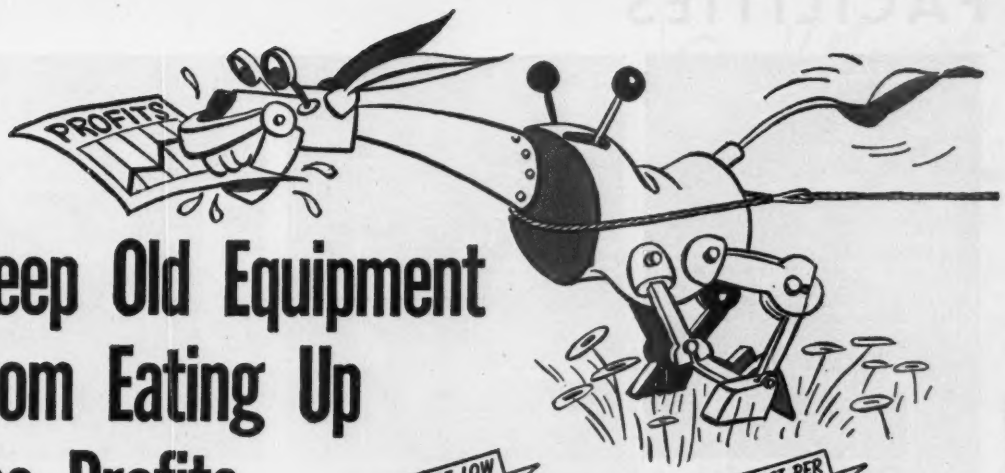
in 15,000-gal. tanks. Pipes lead from each storage tank through metering machines to processing tanks. Dry ingredients are added to the tank by means of a tilt hoist.

• **Mixing and Drying**—From the processing tanks, where the ingredients are mixed, more pipes lead to the tanks in which the napalm is actually made. Once more metering gauges keep the amounts exact. In the tank, turbine agitators mix the ingredients. From the napalm tank, the mixture is pumped to a centrifugal extractor that reduces the water content to about 35%. This mixture then goes to an elevated bin, which in turn leads to a rotary drier.

Flow of the napalm through the drier is regulated, gets a blast of 320 F. air all the way through. By the time the napalm reaches the discharge end of the drier, its water content has been reduced to .4% to .8%, the government specification. A screw conveyor carries the napalm from the discharge end of the drier to the proportioning equipment. After further blending and various other final steps, the napalm is packaged either in 150-lb. sealed drums or in five-and-one-half-lb. tins.

• **Standard Lineup**—In equipping the plant to operate automatically, Ferro engineers have adopted more or less standard plant equipment to an in-line, mass-production system. Centrifugal extractors replace filter boxes, a rotary continuous drier replaces oven trays, and the blending of napalm is done accurately by mechanical means.

All in all, the investment has paid off handsomely for Ferro. The company recently got a contract to produce 3.5-million lb. of napalm for delivery this year. It can meet that with ease—and profit.



Keep Old Equipment from Eating Up the Profits

IT PAYS TO KEEP PACE WITH MACHINERY PROGRESS

RISING COSTS, manpower shortages, and other factors are all cutting into profits. Reducing unit costs is one of the few ways left to protect your profit position. You can no longer afford to keep old or obsolete equipment in your plant. Even though maintenance and depreciation are low on present equipment, perhaps it should be replaced. It's unit cost that counts.

A growing number of companies are finding it profitable to undertake a long range replacement program. Their objective is to get more production out of fewer machines operating in a smaller space. One of these companies may be a competitor of yours.

Ask an Allis-Chalmers representative to talk to you about ways of lowering unit costs. He will be glad to help you without obligation. Since Allis-Chalmers builds major equipment for nearly every industry, his experience covers an unusually wide range of equipment and methods. Call him today, or write Allis-Chalmers, Milwaukee 1, Wisconsin. A-3494A

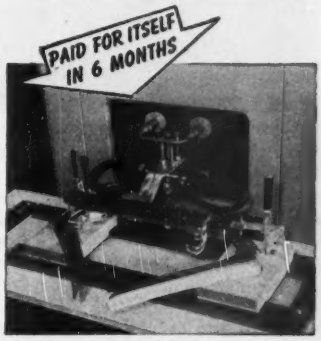
Equiseal is an Allis-Chalmers trademark.

Centrifugal Blowers

This Allis-Chalmers blower is used for catalyst aeration in a petroleum refinery. It ran 562 days at 85 revolutions per second without stopping . . . then shut down for inspection. Only routine maintenance in 8 years.

Process Pump

Designed for difficult handling of abrasive and corrosive liquids. New *Equiseal* stuffing box eliminates leakage. This feature together with special metal alloys means long life, low cost per gallon pumped.



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Metal chair maker now uses 10-kw Allis-Chalmers induction heater to stress relieve braces and other parts in place of acetylene torch. Parts per hour nearly doubled. Cost of utilities cut 90%. Rejects greatly reduced.

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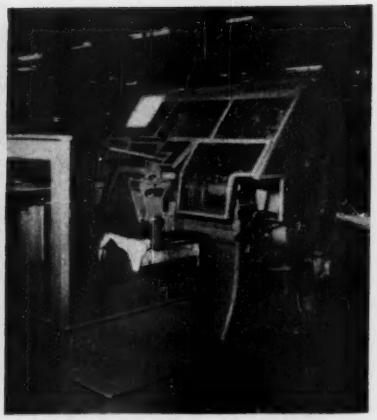
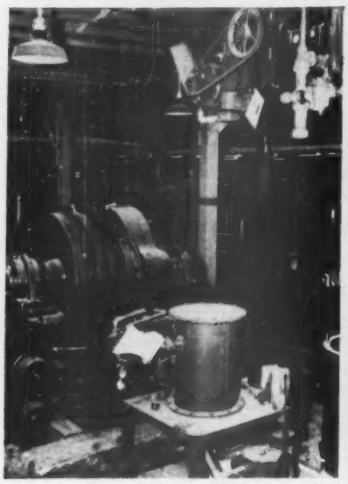


REPAIR This machine—which is used to trim brass shell cases—was left in shambles when Lake City Arsenal (near Independence, Mo.) closed down after World War II. After preliminary on-the-spot fixup, F. H. McGraw crew hauls it off to its electrical shop for a thorough overhauling. Then it gets a fresh paint job and is remounted.



RENOVATION For machines that have been packed in protective grease, the first step is to remove the Cosmoline—the heavy preservative that covers all parts (left). The process is called "degunking." On light machines, the job is done by hand. Final stage is to check machine under full power. Then it's ready for Remington Arms.

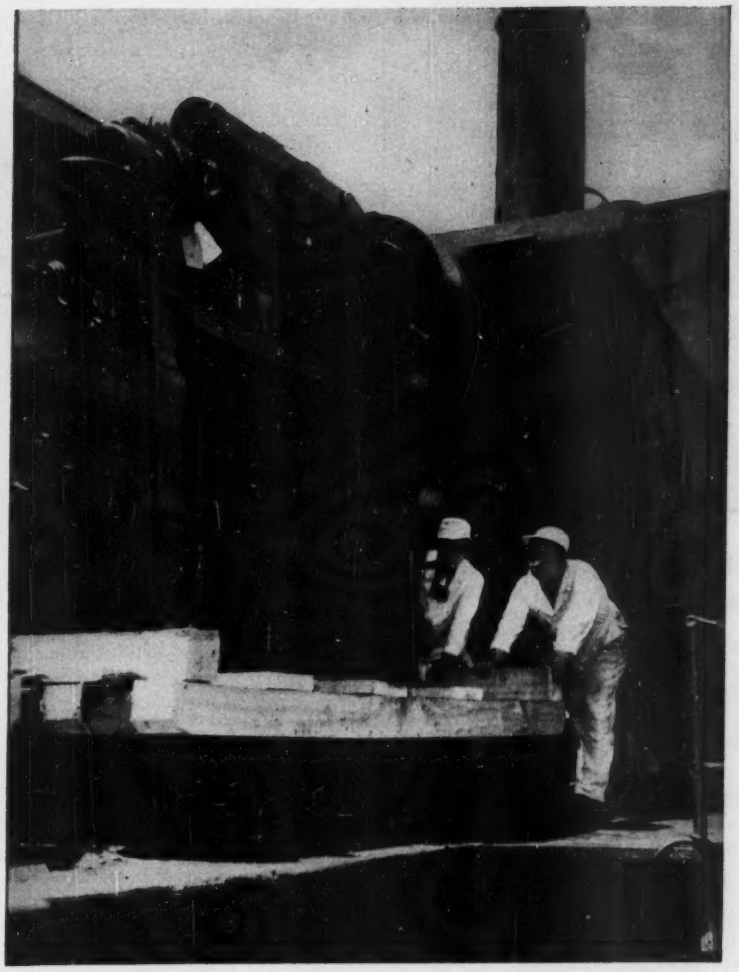
How They De-Mothball the Standby

Today's mobilizers have at least one problem that never came up before: how to get standby war plants out of mothballs and back in working order in a hurry. This was one thing nobody worried about in the days before World War II. There were no standby plants; everything was built from scratch.

On the basis of experience so far, the mobilizers are finding that it's well worth the trouble to de-mothball. Though a mammoth undertaking, the operation is a lot simpler and cheaper than building a new plant, provided the original job of preserving was a good one. In the case of the Lake City Arsenal, near Independence, Mo., the U.S. was able to get the job done in five months.

Last February F. H. McGraw & Co., which specializes in heavy industrial construction, started rehabilitation of the Lake City Arsenal. Two months before, the Army Ordnance Dept. had awarded Remington Arms Co., Inc., a $19-million contract to make small arms ammunition at the plant. The original plan was to reactivate 10% of the arsenal to produce 20% of the plant's capacity. But the project expanded by leaps and bounds. By March the contract was revised to 80% of the plant's capacity, and McGraw found itself involved with scores of millwrights, carpenters, plumbers, laborers, truck drivers, painters, electricians, ironworkers, masons, and administrative help.

Under contract to Remington,



DEGUNKING heavy machinery is done in steam oven. Here a press that stamps out shell cases for ammunition is tugged into the heat bath where most of the preservative is melted off.

Plants

McGraw moved in with its crew. It had to dust out and rehabilitate about 41 of the plant's 50 buildings. The job took nearly 1,000 men. Before Apr. 10, the first complete round of small arms rolled off the assembly line.

Biggest job was getting the machinery back in order. It had been stored in Cosmoline, an anticorrosion, grease-like compound. First, the machines had to be "degunked." After that, they had on-the-spot repairs, cleaning, were put in good operating condition, then remounted and painted. There were several thousand pieces of machinery stored throughout the various buildings. McGraw finished its part of the work Aug. 15.

Remington Arms, which operated the plant during World War II, will use the production lines this time for some different types of ammunition—high-explosive incendiary, armor-piercing, and armor-piercing-tracer bullets. The company expects to employ between 8,000 and 10,000 when the plant reaches capacity.

Lt. Col. E. M. Serrem, commanding officer of the arsenal, estimates that $1¼-million will be spent for new construction and expansion.

In Hollywood

nearly everyone uses the Stereo-Realist

IN Hollywood, the people who know picture-making and picture-taking — stars, producers, directors, cameramen — actually *prefer* the REALIST. They use the REALIST not only for personal photography, but also to help make movies "better than ever."

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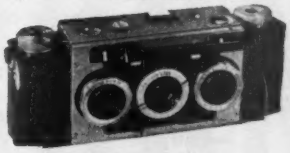

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CASE HISTORY REPORT

on how a metal-processing plant keeps operating costs down..saves space

● **PROBLEM:**

A. Loading 250 tons of metal slabs, weighing 50 pounds each into five box cars each day.

B. Keeping loading costs to a minimum.

● **SOLUTION:**

Two powered-industrial trucks were assigned to the job. Eighty metal slabs were stacked in unit loads at the production line and moved directly and stowed as unit loads in outbound box cars.

● **RESULTS:**

Using manual methods, this work cost $1.05 per ton handled. But by using powered-industrial trucks, handling costs are held to approximately *10 cents per ton*—a saving of 90%!

● **OTHER BENEFITS:**

1. Powered-industrial trucks are used in all phases of production, assuring a smooth and dependable flow of materials at all times and eliminating costly delays.

2. Metal stacked in unit loads permits fork trucks to tier pallet loads four-high, cutting in half the space needed for storage.

3. Truck maintenance costs have been very low; down-time has been negligible.

THIS IS NOT AN ISOLATED CASE. Similar savings have been made in all types of industries. Ask your industrial truck sales engineer for information about case histories in *your* industry.

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Rummage Sale . . .

. . . on "obsolete" machine tools brings 400 buyers to Georgia as Air Force tries to clean out bomber plant.

For a long time, the Air Force has been sitting on a batch of "obsolete" machine tools at the World War II bomber plant at Marietta, Ga. It decided there were two good reasons to stop sitting: the critical shortage of machine tools in defense industry; the need for space in the plant so Lockheed Aircraft Corp. could proceed with work reactivating it.

The stymie was how to get defense contractors who might want the machines in to look them over. Air Force hit on a plan—Operation Gold Rush.

Last week it began air-ferrying contractors into Marietta, to let them see what was to be had. As a result, in the first two days more than 20% of the 6,546 available tools were allocated.

• **Everybody Came**—The first group included 400 executives from 178 plants. Among the big company names were General Electric, Budd, Buick, Bendix, Frigidaire, Firestone, American Machine & Foundry. The men roamed through the half-mile-long plant, inspecting the machinery. Each machine bore a tag on which the visitor wrote his company name if he wanted the tool.

• **Score**—At the end of the first day, 748 tools had been selected. Some of them had several names on the tags. Next day another 550 were tagged. Then a special priorities board of Air Force officers reviewed the selections.

• **How They Made Out**—The following morning the company executives returned to see what they had drawn and to arrange for its transportation. Awards were made on a strict priority basis—best machine to highest priority—regardless of sequence of names on tag. With additions and changes, the total disposed of was 1,300. Then a large group of the representatives were flown to Omaha, Neb., to another Air Force cache of old machine tools.

Subcontractors were more than satisfied with their bargains. One company latched onto a deep-hole drill that will make it unnecessary to subcontract drillings. Another purchased two $225,000 upsetters that otherwise would have been on order for months.

• **Quick Delivery**—The USAF Industrial Equipment Division is monitoring the project and also handling the shipping. The machines are going out fast—with 600 men loading them. Railroads have provided special switching. Local trucking firms are doing a land-office business.

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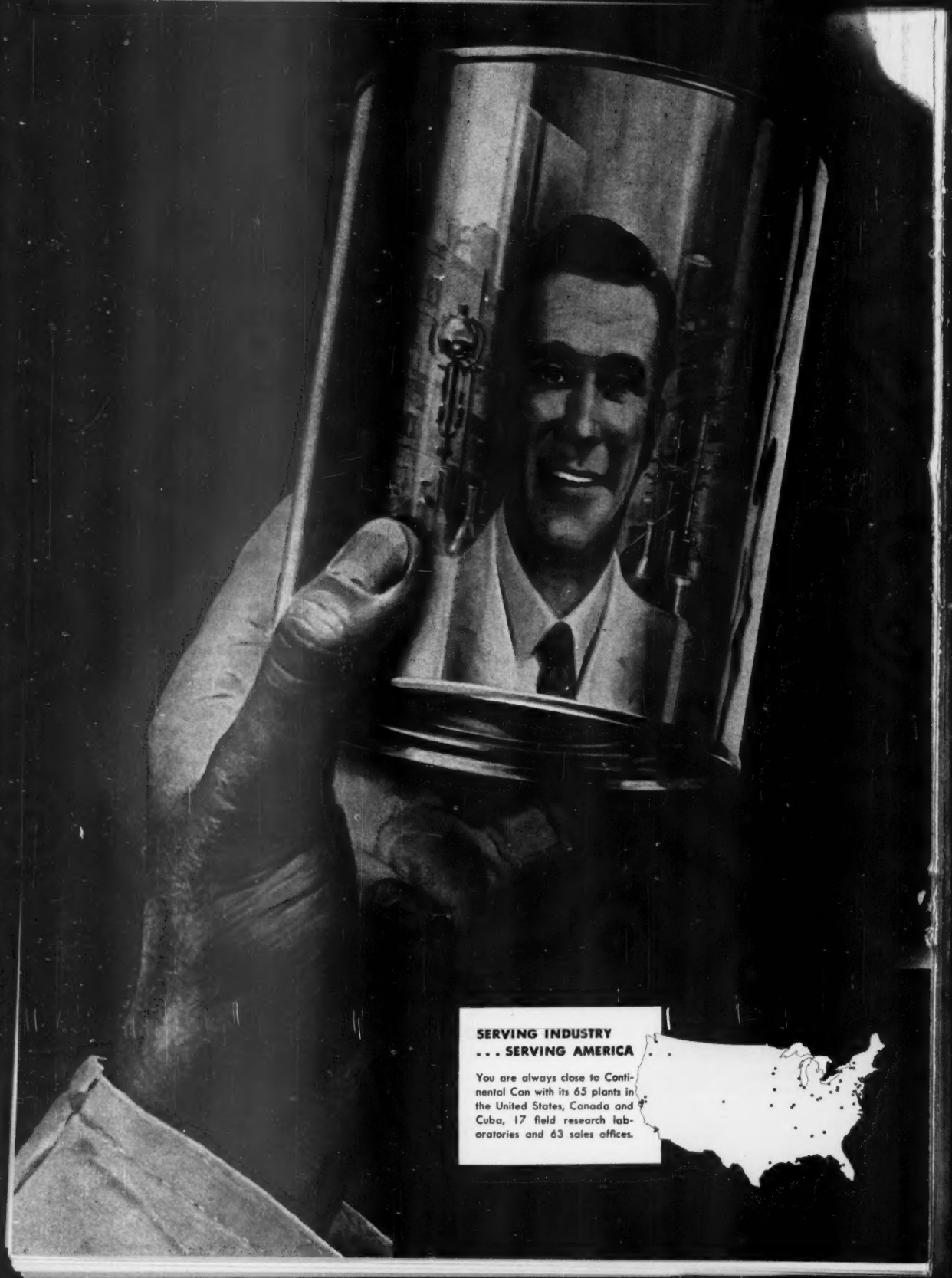
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Already considerable progress has been made along this line by Continental and other scientific groups. Since 1940, tin savings have been made, ranging from around 12 per cent in cans used to pack cherries to about 83 per cent in cans used to pack corn, peas, and some meats and fish. And now many cans are made *without any tin at all.*

To the men in the Continental laboratories, this is only a beginning. They know that cans are the only satisfactory containers for many products--that they are vital to the food industry and to everyone who eats. That is why they are doing everything they can to make as many cans as possible from available supplies of steel, tin and lead—and to make these cans better than ever.

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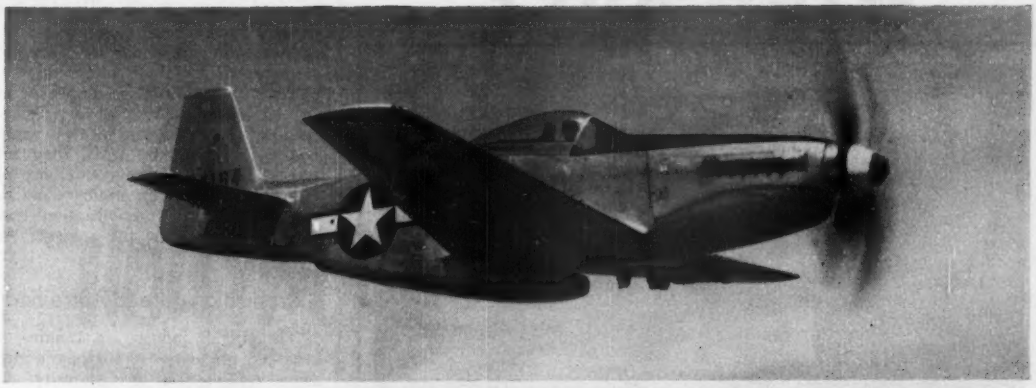
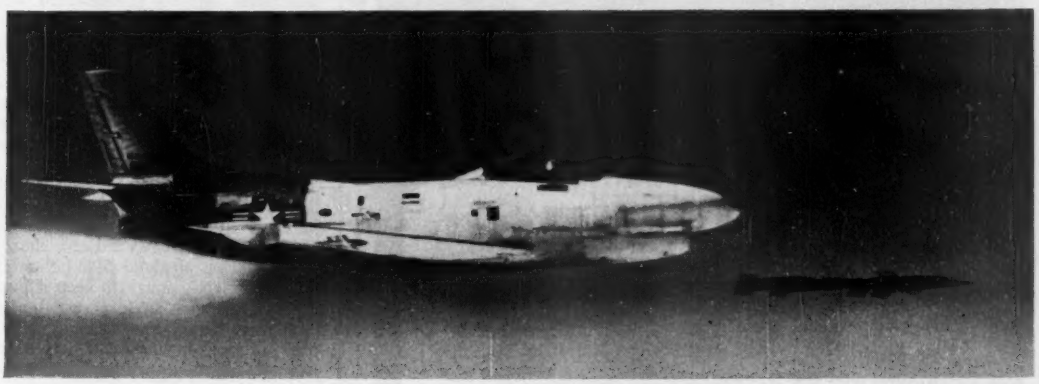


P-51 MUSTANG was the fighter workhorse of World War II. Yet it cost but a fraction of the money and time required for . . .



F-86 SABRE JET, which comes to $624,682 fully equipped. Vast complication of modern planes increases the load on industry.

What Would 150-Wing Air Force Mean?

The concept of airpower is changing almost daily. While the U. S. is still scrambling toward an Air Force strength of 95 wings, it is already beginning to talk about expanding to 150 wings. Last week the Senate added $5-billion to 1952 military appropriations to finance emergency expansion of the Air Force.

The 150-wing project is still only tentative. But any change in the air program is far more likely to be up than down. And a major change would have a tremendous impact on the whole business structure.

To appraise this impact, the McGraw-Hill Dept. of Economics has prepared this outline of the effects that the accelerated program would have on defense production, defense spending, the materials outlook for industry, and the strategy of Western defense.

The United States Air Force, which has been struggling upward toward a strength of 95 wings, may be expanded to 150 wings.

That kind of stepup will bring major changes in the defense program. Close to half of all the equipment that industry is building for the services is geared to airplanes—so the air program can wag the entire U.S. defense setup.

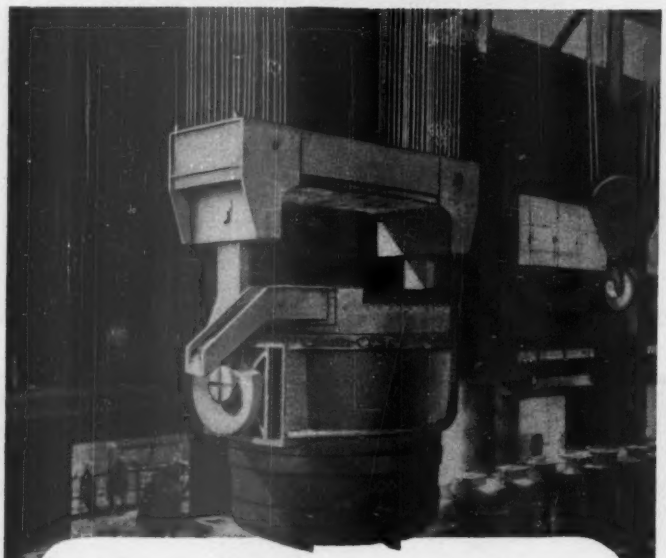
Expansion to 150 wings (a wing has from 15 to 75 planes, depending on the type; from 2,000 to 3,500 combat personnel, plus ground support units) would change the outlook in these ways:

• The defense program would be stretched out over more years. Where defense production is now scheduled to peak out in the second half of 1952, it might not reach its peak until well into 1953. And it would stay relatively high well into 1954.

• Defense spending would rise somewhat in the next 18 months—but perhaps by no more than $5-billion a year over what is now scheduled. Most of the astronomical dollar figures (Sen. Henry Cabot Lodge, Jr., estimates the expansion would cost an extra $10-billion a year now and would run total Air Force spending up to $37-billion a year in 1954) have been on the high side. But instead of tapering off sharply in 1953, spending would stay high well through 1954—thus prolonging the mobilization boom.

• Expanding Air Force strength wouldn't radically change the military take of basic materials in the next two years. Civilian supplies of steel, copper, and other metals should begin to expand by 1953—pretty much as expected under

WIRE ROPE



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the current U. S. mobilization program.

Aside from this question of Air Force expansion, there's a real possibility that fundamental changes in strategy—based in part on new weapons such as atomic artillery shells and the atomic-powered submarine—may sharply reduce the burden of defense on the civilian economy. It'll be two years or more before these weapons make their full impact felt. But they could have an even greater effect on strategy—and on industry's role in mobilization—than would today's plans for a bigger Air Force.

I. Production Already Strained

The aircraft industry is straining to step up production—but today's program is about all the industry can handle now. Mobilization director Charles E. Wilson has reported that the rate of deliveries is up two-thirds from a year ago, is scheduled to triple in the next year. Figures on aircraft delivered are secret. But it is a fair and informed guess that production this year will run to about 4,500 and that next year may see 12,000 planes come off the lines.

Even if appropriations were tripled tomorrow, output wouldn't go up much faster in 1951 and through most of 1952. The electronics industry already has a backlog of about $3.8-billion in military orders—enough to keep it busy a year. Aircraft builders are buried even more deeply under orders. Nineteen leading companies now have backlogs equal to more than four times their 1950 sales.

• **Jet Tools**—Jet engines—and the tools to make them—are a bottleneck that limits the rate at which production can be stepped up. Apparently it will be a year before the engine builders have all the machine tools they need. In addition, the rarer alloying metals—like cobalt and columbium—set a ceiling on production. Until new alloys, perhaps based on titanium or other materials, can be developed, production of jet engines can't go all-out.

The very complexity of today's weapons limits the possibility of boosting production. A mobile search radar set, for example, costs $782,798 and contains more than 500 vacuum tubes and 10 mi. of circuits. It took 30 highly skilled engineers two and one-half years to design it—and the engineering work in improving it probably never will stop.

• **Price Comparison**—In the aircraft field, J. H. Kindelberger, chairman of the board, North American Aviation, Inc., enlightened the House Appropriations Committee with some comparisons of manufacturing problems on World War II's top fighter plane, the P-51 Mustang, and today's jet-driven

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NEBRASKA RESOURCES DIVISION
STATE CAPITOL LINCOLN

F-86. The P-51 weighed 9,340 pounds; the F-86 weighs 13,885 pounds, about half again as much. The P-51 turned up 1,461 hp.; the F-86's thrust horsepower is 10,400. At comparable production rates—both planes being turned out at the rate of 20 a day in runs of 4,000—the P-51 airframe alone cost $14,117 against a projected cost of $47,954 for the F-86 airframe today.

Problems all along the line multiply as aircraft become more intricate. The sharpest difference cited by Kindelberger was in engineering: It took 41,880 engineering manhours to develop the first P-51 in 1940. The first F-86 in 1951 required 1,131,992 hours—27 times as much.

• **Complex Gear**—In the same way, all the gear that is hung on the aircraft has multiplied in complexity and cost. When the F-86 is completely rigged out as an all-weather fighter with radar, gunsighting systems, an engine, and spare parts, the cost runs up to $624,682.

The bombsight is a spectacular example of growing complexity. The famed Norden sight of World War II cost $2,500. Today's all-weather radar sight capable of operating accurately at altitudes of 50,000 feet and above costs $250,000—100 times as much.

Tooling up to produce a new plane is a long, expensive business. The Air Force has one design for a huge new plane that involves $50-million in tooling. The first four planes turned out will cost $21-million each. But as volume grows and tooling costs are amortized over more units, the cost will come down to about $3.8-million.

These are the things that lead to "shortfalls" and "slippage" in production programs.

• **Into Future**—For all these reasons, actual production of combat aircraft in the next 18 months can't be stepped up much above the rate now planned. Going to 150 wings would mean most of the added planes would have to be delivered in 1953 and 1954.

The Navy, too, would like to expand its air arm. Chairman Vinson of the powerful House Armed Services Committee would like to see the Air Force go to 163 wings and the Navy set up with two additional supercarriers, sister ships to the 59,900-ton carrier recently authorized by Congress. But carrier building schedules run well beyond two years. So if the Navy's program is extended, it, too, must be pushed forward in time.

II. Step-Up in Spending

Defense spending can be stepped up in the next year or two—though actual production and delivery of planes can't be increased too much. The Air Force, for example, would speed up its recruiting and training programs in order to have pilots ready as the planes were produced.

The aircraft industry, too, will need limited amounts of new facilities. But broadly speaking, the industry has most of what it will need in the way of buildings—bricks and mortar.

• **No Letdown**—All this will raise spending in the next few years—if the program is stepped up. It is still far too early to say precisely how much. But $5-billion to $7-billion a year is probably an outside limit. The important thing, in considering the impact on business, is that defense spending will stay at a high level for years. Instead of tapering off fairly rapidly after mid-1953—to, say, $40-billion a year from a peak of perhaps $65-billion during the buildup period—it would stay at a high level through 1953 and 1954, perhaps through 1955.

All of which means that businessmen planning ahead three or four years can expect that expansion of the air program would extend the defense boom and reduce the possibility of a sharp letdown in business activity.

III. Pressure for Materials

The military squeeze on most industrial materials—under today's program—will begin to ease after mid-1952. Under the plan outlined by the director of mobilization, the huge program to expand industrial plant capacity will be easing back. Production of most weapons will be over the hump about a year from now. Output of basic materials will have been stepped up sharply by then. So more metal is going to be available for civilian products by late 1952.

That picture won't change very much if the Air Force goes ahead with its expansion program. The Air Force program would take a relatively small share of the supplies of aluminum in prospect for 1953 and later years. Shortages of other critical materials—titanium, cobalt, columbium, and others—will continue, but they have been expected to be tight for years to come in any case. And industry in many cases has found ways of using smaller quantities of them or has found substitutes. So the worst of the shortages will disappear about on schedule—unless we get involved in general war.

• **Bigger Companies**—This whole defense program concentrates on such specialized, highly complex devices that its burden falls largely on the bigger companies with research and engineering staffs and specialized skills. A larger airplane program won't change that—the companies that are now supplying aircraft and related equipment will be called on to do the longer-run job, by and large.

This seems true even in the field of

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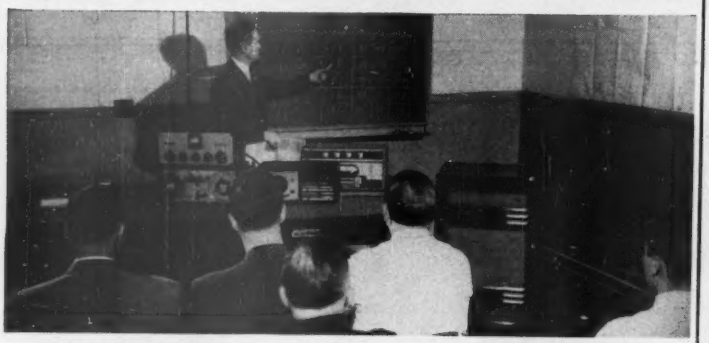

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electronics. That program promises to continue to concentrate on the huge intricate devices of the same general sort it involves now. Short of a shooting war—which would multiply the services' needs for tank radio receivers, walkie-talkies, and such—there will be comparatively little call for the relatively simple devices that are mass-produced.

This general picture promises to hold true even if the guided missile suddenly reaches the high-production stage.

IV. Strategy—and the Atom

The question as to how—and how much—the Air Force should expand is now being decided, within a cocoon of secrecy, by the Air Force. The program must then be approved by the Joint Chiefs of Staff and by the Secretary of Defense. In the end, of course, Congress makes the money decisions. All along the line the plan can be changed. We may end up with 130 wings—or 160.

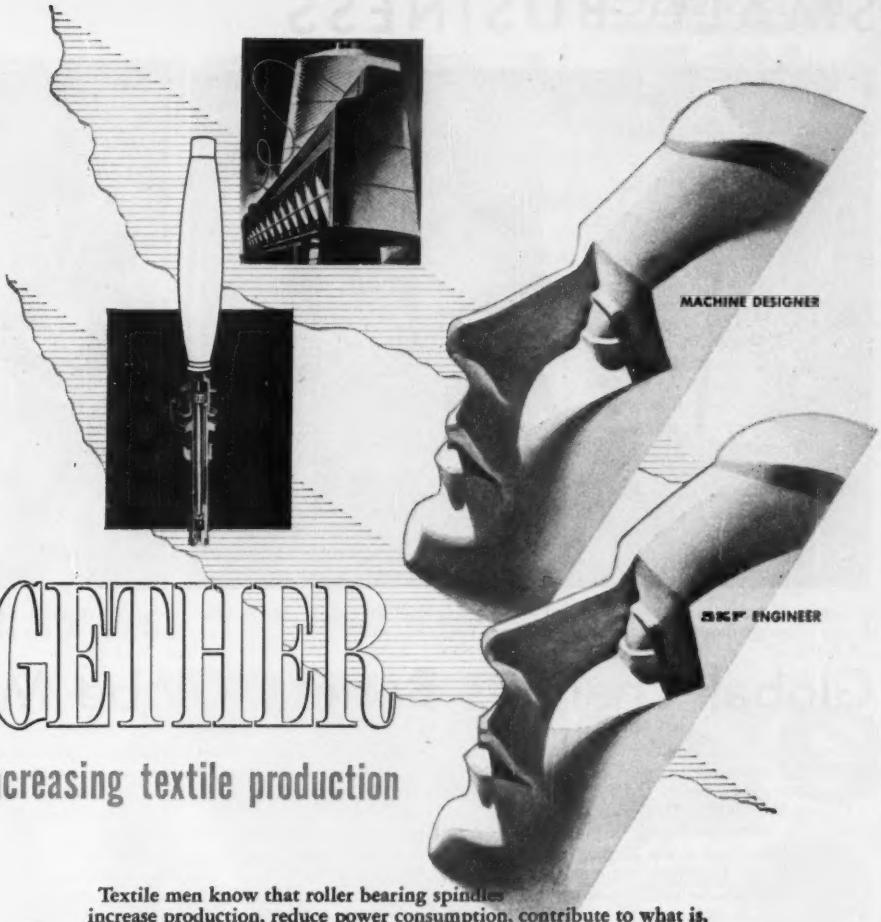
However, the Senate has already approved expansion, and key House leaders like Vinson are pulling hard for something like 150 wings. The American people, too, seem to like the idea of carrying the war to the enemy by air, where there is at least hope of a quick decision. So an expanded Air Force seems like a good bet.

• **Army and Navy**—The big question is: Will the Army and Navy expand proportionately? One way or another, the three services have managed to share defense budgets almost equally since the end of World War II. Top Air Force officials now believe that their case is strong enough so the old three-way formula can be modified.

If the Army and Navy should also get substantial increases in the next year, then a much broader segment of industry would get bigger orders—and shortages of metals for civilian products would be prolonged.

A much more optimistic possibility is shaping up, however. As it is now, an expanded Air Force is the biggest change in sight. A much more important change may come through the new weapons—such as artillery shells and guided missiles with atomic warheads. Prototypes of atomic-powered submarines and aircraft are already in production.

• **Atomic Future**—The importance of those weapons is a first-class reason for expanding the Air Force program in order to have the planes to deliver them. They also hold the possibility of giving the Western World enough strength to offset Russia at a long-run cost considerably below what is expected now. In any case, they promise radically to change U.S. strategy—and industry's role in defense—within a few years.



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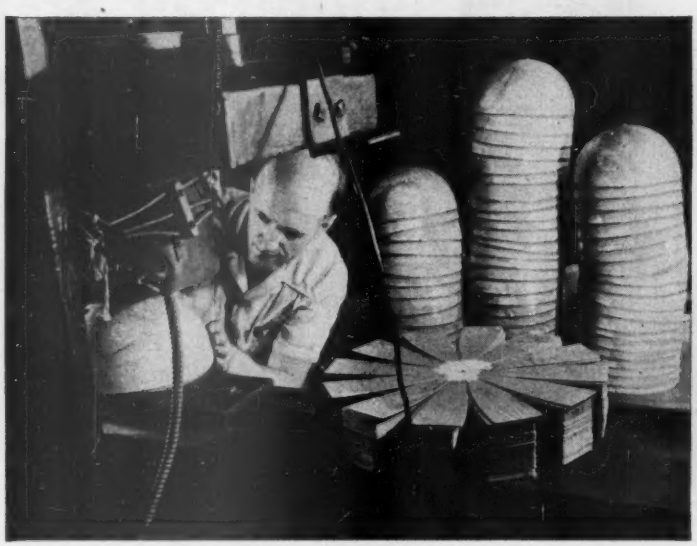


1 Cardboard segments, or gores, are pressed into hemispheres at Replogle Globe Co. The two halves are then pasted together. Result: one bright new world.

2 A waterproof cement is the tie that binds the two halves of the world.

Global Changes Benefit Globe Maker

Every time world boundaries change, one of the biggest little businesses in the country gets a boost.

During World War II, the Replogle Globe Co., Chicago—biggest manufacturer of globes—had a job keeping up with demand. Everybody wanted to follow the war theater, and globes gave the best over-all picture.

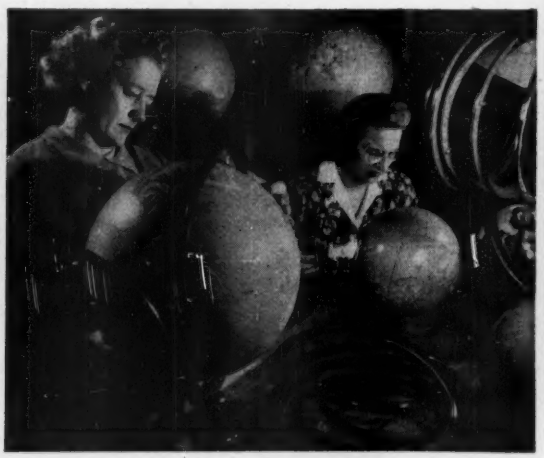
Even at the peak of the boom, the company employed only 200. That's typical of the industry, which is made up of very small companies that use only highly skilled workers.

After the war, the market fell flat. It was flooded with globes, and a lot of dealers got badly stuck with old models.

The slump didn't last, however. The war in Korea snapped up interest, and the boom was on again. Schools and libraries clamored for visual dope on new boundaries, and they wanted to brush up on what's where in the Far East.

Replogle turns out all kinds of globes, from machine-made cardboard models retailing at $3.95, to all-steel models for libraries. The company says it can produce 1,500 models a day.

5 Spinning world gets a final coat of lacquer. An exhaust hood carries the fumes out of the room.



6 The world is placed on its axis. Getting the exact polar inclination is the final step in globe making.

3 It takes a steady hand and years of experience to cut out the segments.

4 The simplest way to spoil a globe is to paste a segment in the wrong place.

7 Globes are piled up to await inspection and final assembly. The inspector checks for smoothly pasted segments, clear printing, and proper finish.

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FIGURES OF THE WEEK

THE SHOP is this classic building near the Potomac end of Government Row in Washington. Here the Board of Governors sets the money and credit policies that are carried out by the 12 district banks.

TWENTIETH OF A SERIES

Federal Reserve: Decentralized Central

WINFIELD RIEFLER, assistant to chairman, ranks high in the board's staff.

WOODLIEF THOMAS is economic adviser and interpreter of business life.

RALPH A. YOUNG directs the board's Division of Research and Statistics.

THE BOSS is W. McC. Martin, Jr., board chairman.

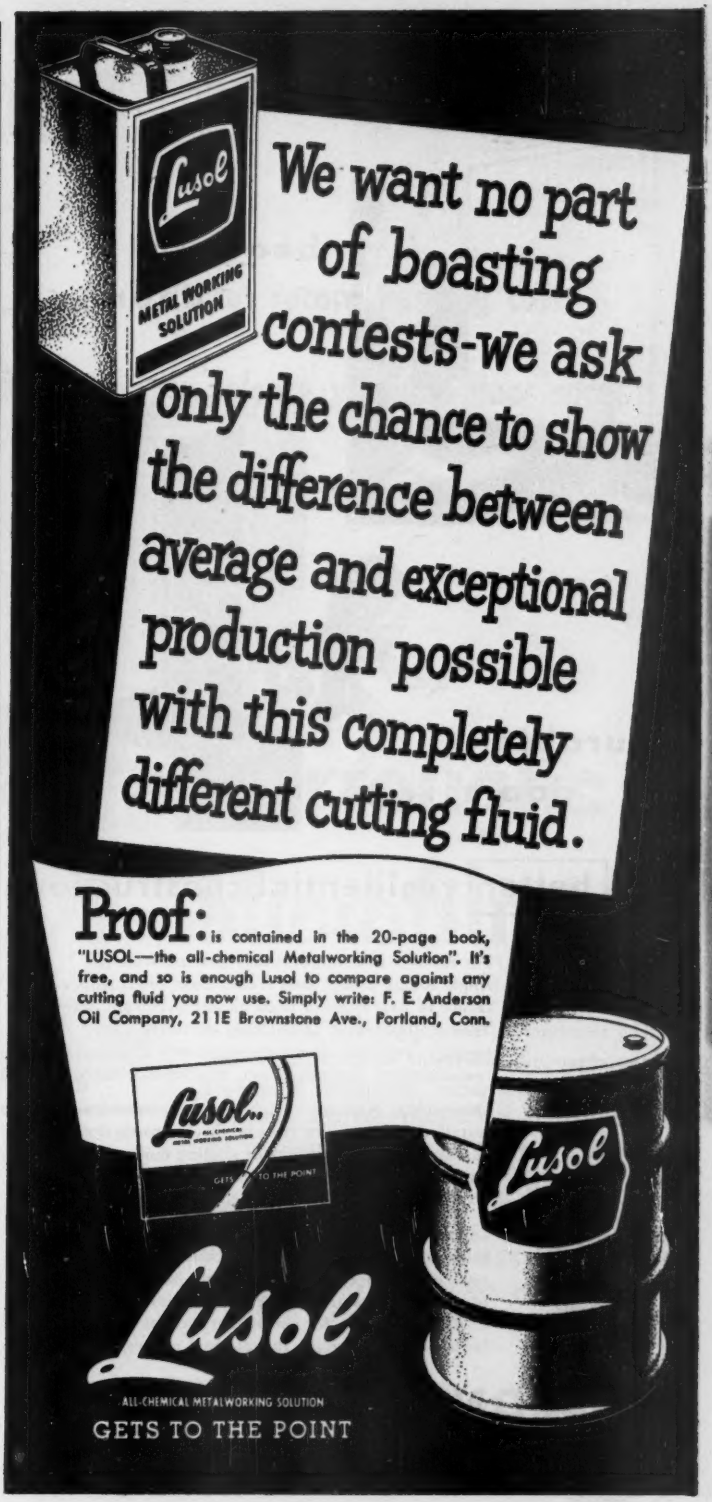
Banking

When people need money, they can go to banks. But when a bank needs money, it's another story. It has to go somewhere else.

Where it goes, and what it has to pay, is a story that means a lot to businessmen. For these factors determine the country's money supply and help shape the ups and downs of the economy. The "somewhere else" is the strategic point where the government can do most to control inflation and deflation.

Once upon a time, there was no place bankers could go for money if people didn't deposit it or if depositors wanted to withdraw it. It was every bank for itself—and the devil took many of the hindmost. Then, in 1913, Congress set up the Federal Reserve System.

• **Panic Panacea**—The system had many purposes, but its main one was to avert the money panics that had been playing havoc with the U. S. economy. One of the worst panics had been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"... technically a privately owned banking system ..."

FEDERAL RESERVE starts on p. 100

recent history—1907. That grim experience gave a strong shove to the idea of a central banking system—which is what the Federal really is.

Panics, the framers of the system declared, were nothing more or less than shortages of money. They said the new system would provide money in proportion to the demand and then shrink the supply as the pressure eased off.

• **The System**—The Federal Reserve is a system of 12 banks operating in 12 districts of the country. Its customers are banks, not individuals or companies. All national banks must by law join the system; state banks may join if they choose to. Each member bank buys stock in its district bank.

Member banks elect three of the directors of each regional Federal Reserve bank from among their own brass. They also elect three more directors from among the industrialists of the region. The three remaining directors, including the chairman and vice-chairman, are chosen by the Federal Reserve Board of Governors, which supervises the whole system. That board is appointed by the President.

• **Semiautonomy**—Directors of the regional banks have the power to deal with their own problems—along the broad policy lines laid down by the National Board of Governors. Since the banks in each district own the stock and choose six of the district bank's nine directors, the Federal Reserve is technically a privately owned central banking system. But its top authority is the Presidentially appointed board.

This makes the Federal Reserve a two-way paradox: It is a decentralized central bank; and it is the mechanism by which the government controls banking even though the bankers own it.

A major function of the reserve banks is to hold the legally required reserves that member banks must set aside against deposits.

• **Emphasis Shifts**—Over the years, the Federal has outgrown its original objective of providing an elastic money supply and supervising the banking business. Experience proved that an elastic money supply wasn't enough to prevent booms and busts—though it did take the curse off the old-style money panic. Since the 1920's the board has been more and more preoccupied with the broader, and tougher, job of trying to use monetary controls to keep the economy on an even keel.

Two world wars had an important effect in shaping the operations of the system. The heavy bond purchases by the Reserve banks in World War I

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". . . can encourage or discourage bank lending . . ."

FEDERAL RESERVE starts on p. 100

established the buying and selling of government securities as a major means of controlling credit in the 1920's and 1930's. Then the huge Treasury borrowing of World War II seriously restricted the usefulness of such open market operations as a control mechanism in the 1940's and 1950's.

I. The Rediscount Rate

The framers of the system thought that the No. 1 power was going to be the Federal's regulation of the rediscount rate. When a bank needs cash to make new loans, it can either rediscount the paper it has taken from customers or borrow on its own note from the reserve bank, using customers' paper as collateral.

The Federal Reserve banks have the power to alter the rediscount rate.

• **Works Two Ways**—When business is in a slump, the Fed can cut the rates to the banks. Then the banks can build up their reserves more cheaply and start making more loans to business. When inflation threatens, the Fed can raise rediscount rates to the point where banks, in turn, will have to raise their interest rates to customers. That discourages borrowing.

At least that's the way the system was expected to work. In practice, the rediscount operation hasn't been the major control device. For one thing, it places the real initiative in the hands of the banks. And the banks don't like to show debt on their books—even debt to a bank they own. Besides, when business is bad, the banks are generally sitting on a pile of excess reserves they're afraid to lend.

II. Regulating the Reserves

Federal Reserve has another way of controlling reserves and lending power—at least in theory. That is by changing the reserve requirements. The Board of Governors can vary reserve ratios between 3% and 6% for time deposits and between 7% and 14% for demand deposits in country banks, 10% and 20% for reserve city banks, and 13% and 26% for central reserve city banks (New York and Chicago member banks). Within these limits, the board can put pressure on the cash position of banks to expand or contract loans.

Present requirements are at the maximum for all but the New York and Chicago member banks, and they're only 2% below the top limit for those banks.

• **Exhibits A and B**—If a bank is required to keep 15% on deposit with

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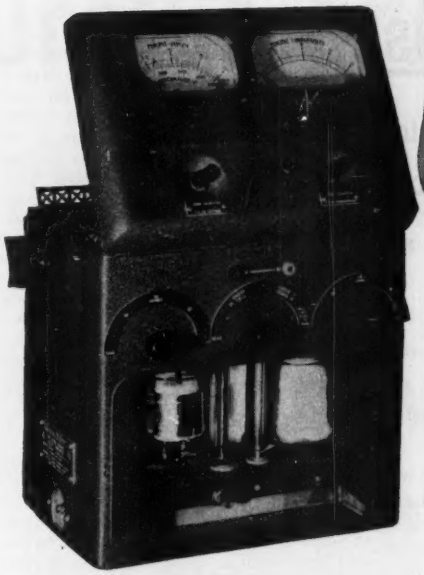

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". . . can choke off a boom, but can't stop a depression . . ."

FEDERAL RESERVE starts on p. 100

its Federal Reserve bank, as a legal reserve, then $150 in the Federal Reserve will allow it to make $1,000 in loans. But if its reserve requirement is upped to 20%, it will have to scratch up another $50 in reserves for each $1,000 of deposits. Unless it already has excess reserves, it will have to call some of its loans or hold up on new ones to get the additional funds.

On the other hand, if the reserve rate drops to 10% the bank can make $1,000 in loans for each $100 it has on deposit with the Federal. But this won't have much effect if business isn't in a mood to borrow. So the manipulation of reserve ratio is pretty much a one-way street. It can choke off a boom; but it can't stave off a depression.

III. Open-Market Operations

The chief means of controlling bank reserves today is through the Federal's open-market operations—the buying and selling of negotiable paper, mainly government securities. When to buy and when to sell is decided by a group called the Open Market Committee. Its members are the seven-man Board of Governors plus five other members selected by the reserve banks.

The Federal's open-market operations influence bank reserves in this way:

• To expand credit, the Open Market Committee buys government bonds (or, rarely, bankers' acceptances). It pays the bond seller by a check on a Federal Reserve bank. The seller deposits the check in his own bank, which, in turn, sends it to the Federal Reserve bank for collection. The Federal Reserve bank credits the amount to the reserve account of the member bank. This boosts the member bank's reserves and puts it in a position to make more loans to its customers.

• To shrink credit, the Federal sells securities in the open market, and the process works in just the opposite direction. The final step is that some bank pays the Federal Reserve bank by allowing its reserve account to be debited. The member bank then has to trim its credit policy to fit the new limits.

• **Another Consideration**—In its open-market dealings, the Federal has more to think about than the direct aim of controlling the money supply. Ever since the start of World War II, it has had to adjust its policy to the Treasury's

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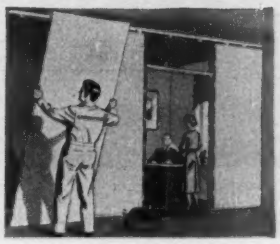
. . . never require repainting. Ordinary soap and water maintain like-new appearance indefinitely.



LIFETIME FACTORY SERVICE
. . . factory-trained experts ready on short notice to service or move your Hauserman installation.

IT PAYS TO PLAN AHEAD . . . and *now* is the time to plan to make maximum use of the cost-saving advantages of Hauserman *Movable* Interiors when you remodel or expand your offices.

Unprecedented demand for these modern walls and partitions has given us heavy *immediate* production schedules. By anticipating your needs in advance, you will insure delivery and erection of your complete Hauserman installation *on time.*

A Hauserman representative will be glad to answer your questions and give you detailed information about these and other advantages. Write *today* to The E. F. Hauserman Co., 7260 Grant Ave., Cleveland 5, Ohio.

Only **HAUSERMAN** *offers*

Korweld*

A new non-metallic panel construction which *exclusively* combines the best features of *all* types of interior partitions. It is soundproof . . . moistureproof . . . rigid . . . strong . . . durable . . . stays permanently flat. It's another result of unending research by Hauserman—pioneer in the conception, development and production of modern movable interiors.

*Trade Mark

HAUSERMAN
Movable Interiors

Nationwide Production with regional economy

Strategically placed near major markets, 13 of Globe-Union's 18 factories are devoted to battery production. They offer to quantity distributors and manufacturers important transportation economies and faster service. Operating with identical methods and standards they also provide products which are reliably alike . . . dependably uniform in that "spinning power" split-second starting and longer life for which Globe-Union built batteries are known 'round the world.

Other Globe-Union products, pioneered and mass produced at Globe-Union's many factories contribute to the continuing progress and world leadership of American industry.

BATTERY DIVISION

GLOBE-UNION INC.

Engineered Products for Industry

MILWAUKEE 1, WISCONSIN

STORAGE BATTERIES • ELECTRONIC PARTS — SPARK PLUGS • CERAMICS • SKATES

FACTORIES SITUATED AT

Atlanta, Ga.
Boston, Mass.
Cincinnati, Ohio
Dallas, Texas
Denville, N. J.
Emporia, Kans.
Ft. Dodge, Iowa
Hastings-on-Hudson, N. Y.
Los Angeles, Calif.
Memphis, Tenn.
Milwaukee, Wis. (4 factories)
Mineral Ridge, Ohio
Oregon City, Ore.
Philadelphia, Pa.
Reidsville, N. C.

". . . you can tell whether the credit system is expanding or contracting . . ."

FEDERAL RESERVE starts on p. 100

financing program. It couldn't be selling securities, tightening credit, and running up the interest rate while the Treasury was floating big war loans.

The Treasury naturally wanted to get its money at low interest rates. So the Federal was enlisted to buy securities in the open market. By standing ready to buy any bonds that could not find takers at par, the Fed put a floor under prices. At the same time, it provided banks with cash to pick up new bonds that other investors didn't absorb. This helped the Treasury, but it also inflated bank reserves and the money supply enormously. Much of the postwar inflation problem resulted from it.

After the war, the Federal Reserve would normally have fought inflation by selling in the open market, thus tightening the money supply. But that would rebound against the Treasury's interests in large-scale refunding and, more recently, some new borrowing.

• **Present Policy**—The controversy over the Federal's open-market policy came to a head in an agreement between the Board of Governors and the Treasury last winter (BW—Mar.10'51,p26). The Federal abandoned its fixed pegs under bond prices, but it still supports them at unannounced levels. Bond prices dropped only a little.

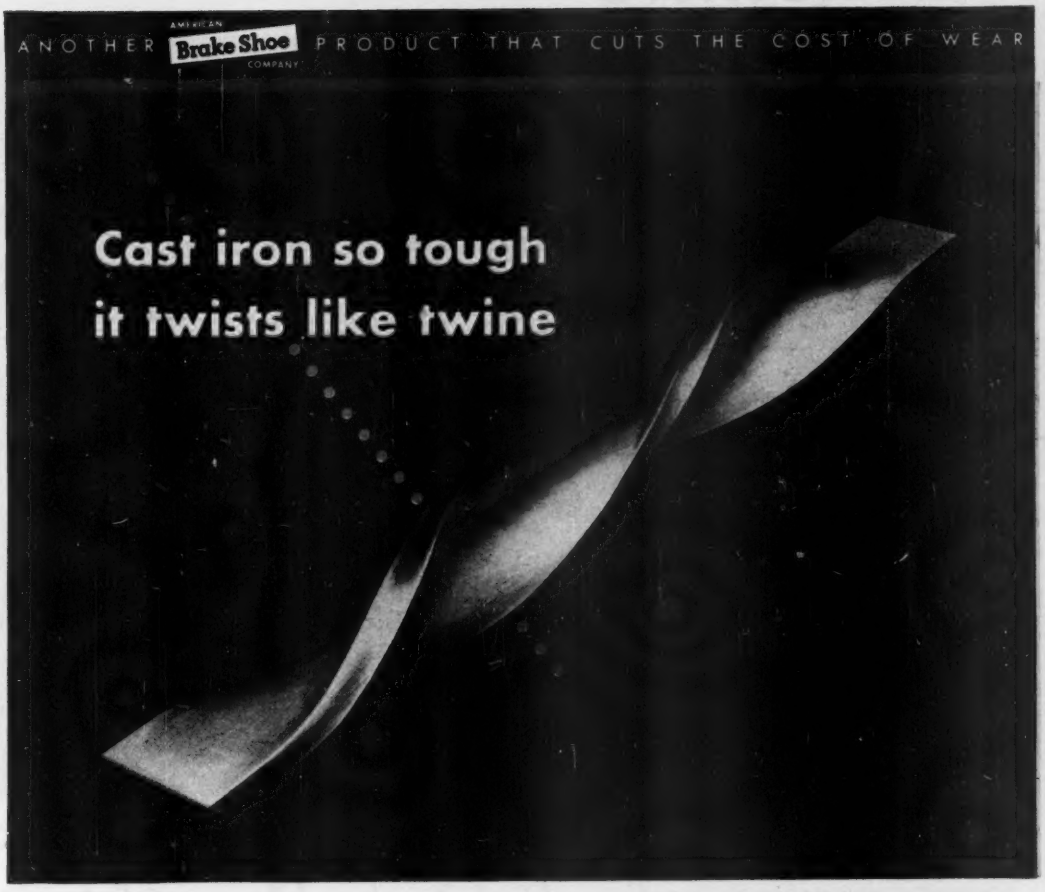
IV. What It All Means

How can the businessman measure what the Federal Reserve is doing in its Olympian strategy with the money supply? The quickest way is to watch the total of Federal Reserve credit outstanding. This total is the Figure of the Week (page 13). It shows how much bank-reserve money the Federal has pumped into the banking system.

The Figure of the Week comes from the Board of Governors at Washington. It shows Federal Reserve credit as of Wednesday of the week before. It is made up of total government securities of all kinds held by the Reserve Banks, plus all discounts, advances, and the small number of industrial loans that Federal Reserve banks are empowered to make.

A breakdown of the figure shows clearly the overwhelming importance of open-market operations as compared with other factors. The total Figure of the Week has been running around $24-billion. Government bond holdings account for more than $23-billion of this.

ANOTHER AMERICAN Brake Shoe COMPANY PRODUCT THAT CUTS THE COST OF WEAR

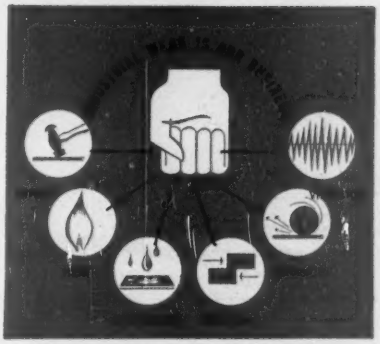


Ductile Iron—A New Metal . . . Offers New Possibilities To Industry!

Unlike many irons, you can bend it, twist it, hit it or heat it and it stands up. Ductile iron is tough. It is stronger than mild steel. This remarkable metal possesses the desirable qualities of cast iron together with many of the advantages of steel. It frequently replaces steel in applications, such as gears, crankshafts, pressure castings, dies and pipe at a lower cost.

Ductile iron may be cast in large or small castings in intricate shapes that are difficult or impossible to cast in steel. It can be cast with a fine surface and to close tolerances. It can have the unique property of combining a chilled surface with a tough ductile core which gives it excellent abrasion resistance and considerable shock resistance. It can be welded to iron, or steel in a strong, tough bond. It has good machinability.

The potential uses of ductile iron are nearly endless because it combines a wide range of properties with a competitive cost. Our engineers will be glad to work with you in finding how ductile iron may be applied to your problem. Write Department A, American Brake Shoe Co., 230 Park Avenue, New York 17, N. Y. for literature on ductile iron.



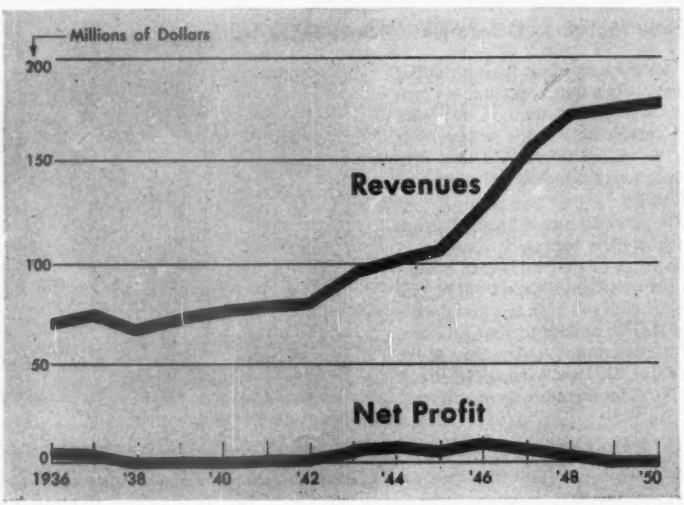
AMERICAN Brake Shoe COMPANY
230 PARK AVE., NEW YORK 17, N.Y.

10 Divisions of American Brake Shoe Co. produce wear-resisting parts in 35 American and Canadian plants.
AMERICAN BRAKEBLOK DIVISION • AMERICAN FORGE DIVISION • AMERICAN MANGANESE STEEL DIVISION
BRAKE SHOE AND CASTINGS DIVISION • ELECTRO-ALLOYS DIVISION • ENGINEERED CASTINGS DIVISION
KELLOGG DIVISION • NATIONAL BEARING DIVISION • RAMAPO AJAX DIVISION • SOUTHERN WHEEL DIVISION

Copyright 1951, American Brake Shoe Company

PUBLISHING

CONTROL Will an agreement signed last fall by William Randolph Hearst give his long-time friend, Marion Davies, control of the vast publishing empire? Hearst's heirs say no, but admit existence of agreement. Miss Davies isn't talking, yet.



INCOME Chart shows how Hearst profits are down, despite high gross income. Rising costs are to blame for this major headache of executors.

Hearst Empire:

When William Randolph Hearst died on Aug. 14, he left a will whose executors were six of the top men in his immense publishing empire. These experienced hands were to guide distribution of the estate into the three trust funds set up by the publisher. The funds, when established, were to be run by 13 trustees—the executors, two other Hearst executives, and the publisher's five sons.

It looked simple and logical. But as soon as the executors moved in, they found themselves face to face with two stiff problems:

- How to get complete control of the properties?
- How to make the properties pay better?

Problem One appeared on the eve of probating the will. Hedda Hopper, bitter competitor of Hearst columnist Louella Parsons, broke the news of a voting trust agreement between Hearst

OWNERSHIP W. R. Hearst, Jr., is often considered most likely of sons to rule publishing empire. He's shown here with his wife.

Who's Boss, and of What?

and his companion of 30 years, Marion Davies. The agreement, dated long after the will, provided that the survivor of the two should vote the stock of the Hearst Corp. for life or for 10 years if any court ruled that life trusteeship was too long.

Remember: The Hearst Corp. sits firmly atop the corporate never-never land of Hearstdom. To control it is to control the subsidiaries.

• **Denial**—Randolph Hearst, one of the sons, and executor-attorney Henry S. MacKay, Jr., broke all speed records in getting out a denial. The two, then serving as special administrators until the will went to probate, confirmed the existence of the agreement, signed last fall. But, they said, it was valueless for numerous complicated reasons.

Since the quick counterattack, the principals have been silent, mostly. The will went to probate without contest, the executors and trustees have been appointed, and bonds executed. At the Hearstian helm, for the moment, are the multiple hands of executors MacKay, Martin F. Huberth, Richard E. Berlin, William Baskervill, Harold G. Kern, and Richard A. Carrington; executives William Curley and Walter Howey; and Hearst sons, W. R., Jr., Randolph, George, John, and David.

A statement pledging executor unanimity and continued application of Hearst principles was issued. The executors are well qualified for this, familiar with the Hearst properties and the way Hearst wanted them run.

• **Time to File**—In the background, saying nothing, are Miss Davies and her attorney. The silence does not necessarily mean consent; California law permits six months for filing actions to contest a will admitted to probate.

There's speculation that Miss Davies' voting trust may never be tested in court. Rather, there's a feeling that a

ashes can't talk

Records Alone Can Prove Pre-fire Values

That's why the fire insurance adjuster waits for the indisputable proof-of-loss your policy requires you to submit with your claim for a settlement-in-full. Without supporting records your claim must be negotiated . . . a time consuming, costly process. Experience proves that 43 out of 100 firms who lost records in fires could not resume business even though they had fire insurance.

Let your H-H-M Dealer help make certain you have adequate protection for the records you will need after a fire to . . . settle insurance in full . . . collect accounts . . . re-establish credit . . . and continue in business. Act now before your records are threatened by fire, conflagration or explosion. Write for a copy of "How and How Long Should Business Records Be Kept?"

ALL OVER THE WORLD
HERRING-HALL-MARVIN SAFE CO.
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IT'S A SAFE NAME

Herring-Hall-Marvin Safe Co.
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Craftsmen in . . . Safes • Insulated Record Files • Money Chests • Vault Doors • Rotary Record Files • Steel Storage Files • Bank Vault Equipment • Drive-In Windows • Depositories • Under-Counter Work • Metal Case Work for Hospitals

Builders of The U. S. Silver Storage Vaults, West Point, N. Y.

Cleveland Electric Illuminating Co.

with TOURNADOZER

Several million tons of coal are delivered annually to the Cleveland Electric Illuminating Co. for use in generating electricity. Part of the tremendous task of stockpiling has been assigned to a LeTourneau rubber-tired C Tournadozer, recently purchased for coal handling and maintenance service at their Ashtabula, Ohio plant.

Tires reduce fire hazard

Tournadozer's flexible rubber tires, with pressures as low as 40 lbs., compact coal on travel back and forth over the 200' x 1500' stockpile. Combined with cushioned rolling action of over 15½ tons machine weight, coal is packed without breakage in an air-tight layer of considerable depth. This greatly lessens danger of fires caused by spontaneous combustion.

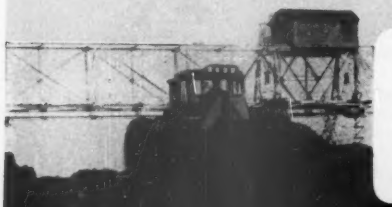
Twice as fast as crawler

Tournadozer "runs" at 19 m.p.h. instead of "crawling" at 5 to 8 m.p.h. Instant-shift Tournamatic transmission gives any one of 4 forward, 2 reverse speeds without stopping or losing vital pushing momentum for fast dozing cycles on the stockpile.

Crosses pavement, tracks

This high-speed mobility plus 186 h.p., 4-wheel drive on rubber makes Tournadozer an ideal tool for handling maintenance within Cleveland Electric Illuminating Co.'s plant network. Unit travels anywhere at a moment's notice . . . cross-country, over pavements, curbs, tracks . . . is always ready to work with no delay for transport or loading.

Whether you stockpile with Tournadozer or keep it busy leveling roads, grading dumps, clearing snow, building parking lots, etc., you'll be amazed at its ability to get more work done at less cost per man hour. This flexible equipment can be used on many tasks, eliminates loss on fixed-type equipment involved during idle periods. Your LeTourneau Distributor will be glad to give you all the facts . . . without obligation.



Fingertip electric control blade moves 2½-yd. loads 50' to 200', working in 2nd gear over grades to 10%. Speedy Tournadozer runs ½ mile in only a few minutes time to handle emergency pushing or pulling jobs around plant area.

R. G. LeTOURNEAU, INC.
Peoria, Illinois
Tournadozer, Tournamatic—Trademark Reg. U. S. Pat. Off. DH12z

settlement will be reached, leaving the executors in command.

I. The Stakes Are Big

Whoever controls the Hearst empire will find it big, diverse, and troublesome. That it's neither so big, diverse, nor perhaps so troublesome as it was 15 years ago is meager consolation to those who face today's problems.

A fast inventory shows that the empire publishes 18 daily and/or Sunday newspapers, plus four Sunday magazine-comic supplements. It publishes nine monthly magazines, three of which have British editions. It operates the largest newspaper feature syndicate—King Features—and the International News Service, a major wire news service, plus International News Photos, a major picture service. It operates three radio stations, one of which also owns a TV outlet, owns a minority interest in a fourth. It owns half of a newsreel producing company.

• **Other Property**—These operating companies are backstopped by service companies that make paper, buy newsprint, solicit magazine subscriptions, operate buildings, and otherwise handle management functions. Elsewhere, the corporate chart is studded with mining and land companies, and numerous inactive properties.

"So don't ask why we live or die, or when we go,
Or wonder about the mysteries that only God may know."

Thus chanted the Rt. Rev. Karl M. Block, Episcopal Bishop of California, at Hearst's graveside in California. The lines were the conclusion of a poem, "Song of the River," that Hearst himself wrote a decade ago. It could have been a theme song for the Hearst properties. Hearst never said much about his holdings or the fabulous 100-odd-company setup that operated them.

• **Pigs in a Poke**—Starting with the San Francisco Examiner in 1887, he piled newspaper on newspaper for 50 years until at one point he published 31 daily and separate Sunday newspapers, plus the Sunday magazines. Hearst people say little about it. But it seems Hearst invested in publishing without acute attention to the profit-making prospects of his new properties.

Insiders believe that it was this indiscriminate publishing—rather than the enormous expenditures on art and the San Simeon and Wyntoon estates—that brought Hearst to his knees financially in 1937. Whatever did it, the fiscal storms that had been avoided during the depths of the depression broke in earnest then.

• **Tide Turns**—Retrenchments came fast. Sales, mergers, and suspensions reduced the newspaper chain by almost 40%. At least three of 14 magazines

". . . Newsprint boosts will raise annual costs nearly $5-million . . ."

HEARST starts on p. 110

went by the board, and five of eight radio stations. The art collections began to be auctioned. The American Weekly was sold to papers outside the Hearst chain for the first time—to cash in further on the earning power of one of the best properties of all.

Quite an imposing chain of newspapers could be fashioned from the Hearst properties that were folded, merged, or sold in Oakland, New York, Chicago, Rochester, Syracuse, Washington, Omaha, Fort Worth, and Atlanta.

• **Shrinkage**—Hearst's real estate holdings felt the squeeze even more sharply. Very little remains today of the New York holdings, once estimated at $40-million. Vast acreages of Hearst property were sold in California and elsewhere.

Hearst even undertook his third public security sale. It was withdrawn soon; the reason given was that the debenture market had changed in the interim. Outsiders laid the withdrawal to unwillingness to provide the information required by the SEC. Finally, the banks stepped in with loans. Hearst's salary as president of the principal newspaper publishing company was cut from $500,000 to $100,000. Under the direction of Judge Clarence Shearn, as sole voting trustee, the Hearst empire avoided collapse.

Then came World War II. Advertisers were swamped with dollars; and under the excess profits tax, the dollars were worth only 14¢. Enough of them flowed into Hearst publications to raise operating revenue from $69.6-million in 1938 to $109-million in 1945. Net income went from $200,000 to $7.5-million.

II. No Beer, Few Skittles

With another war economy at hand, you might expect the Hearst empire to be back in the lush pastures. But today the newspaper business, as a whole, is fighting a hard battle against soaring costs. And Hearst Consolidated Publications, Inc.—which directly or through Hearst Publishing Co. publishes 12 of the 18 dailies and the two Sunday magazines—seems to be losing the battle so far.

In 1950 HCPI was able to earn 2.2% on its largest gross in history—$4-million out of $179-million. Perhaps even more indicative of the impact of costs: In 1944 the company brought 25% of operating income down to operating profit. Last year it brought down 5%.

• **Newsprint**—A brimful measure of the difficulty presently facing Hearst Consolidated is beyond its control. The whole newspaper industry raged last June when Canadian newsprint makers boosted the price $10 per ton—to $116 delivered in New York—effective July 1. Hearst directors declared it would raise their annual costs nearly $5-million—that's $1-million more than the 1950 earnings.

The directors passed quarterly dividends for June and September. The Class A preferred—fairly widely held by the public—already was $8.31 in arrears; so another 87¢ deficit threatened no immediate disaster. More compelling is the provision that preferred holders may elect a majority of the directors if four consecutive quarterly dividends are passed. That means Hearst Consolidated can pass a third quarterly next December, but will have to raise $520,559 by March or the provision can be invoked.

Hearst Consolidated was feeling a squeeze even before newsprint went up. With a gross practically the same as in the first six months of 1950, Hearst Consolidated's net income in 1951 was down 63%. All that drop can be charged to costs. The federal tax liability this year was just over half of that in the first half of 1950.

• **Space Off**—Against the national trend, the Hearst newspapers are selling less space this year than last. According to Media Records, total newspaper linage during the first half was up 2.2%; Hearst linage was off 4.6%. Gross advertising income dropped only $150,000, but that was due to rate increases.

Of the 29 daily and Sunday papers, 19 showed a drop in linage. Generally the Sunday editions were harder hit. That points a finger right at one of the sorest spots in Hearstdom, the American Weekly.

• **Where It Hurts**—The Weekly still sells a lot of space—$7.2-million worth in 1951's first half. But pages were off 20%, revenue 19% (its companion, Puck—The Comic Weekly, showed 6% and 4% drops in the same categories). Such a drop suffered by the American Weekly probably hurts Hearst's operating profit more than if it were suffered by the Hearst Sunday editions.

The trade doesn't hesitate to say why the Weekly's harder to sell. Experts compare the unchanging type dress, makeup, illustration, and print job of the Weekly with its competition—This Week, Parade, etc.

• **Magazines**—No operating or financial data are published on Hearst Magazines, Inc., or the Hearst Corp., which publishes six of the dailies. Media Records shows that the Hearst Corp. dailies

REVOLUTIONARY
ABRASIVE
FLOOR PLATE

A.W. ALGRIP
Prevents Falling Accidents
Saves Money!
Saves Time!
Ups Production!

A. W. ALGRIP, a revolutionary, abrasive rolled steel floor plate can save you time, money and production. ALGRIP is made by rolling abrasive grain as an integral part of the upper portion of steel floor plate. Wet or dry it's non-slip even on steep inclines.

Magnification shows even distribution of abrasive grains in ALGRIP.

Management men everywhere are learning the advantages of this great new non-slip floor plate and are having it installed in their factories and commercial buildings.

ALGRIP is non-slip even on steep inclines

Write for more details and a free copy of our information-packed booklet BB.

There's Never A Slip On A. W. ALGRIP

A.W. ALGRIP
ABRASIVE FLOOR PLATE

ALAN WOOD STEEL COMPANY
CONSHOHOCKEN, PA.
125 Years of Iron and Steel Making Experience
Other Products: PERMACLAD Stainless Clad Steel • A.W. SUPER-DIAMOND Floor Plate • Plates • Sheets • Strip, (Alloy and Special Grades)

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Daily ledger posting on continuous forms

In the trust department of The First National Bank of Chicago, their procedure of punched card accounting produces something new. It's a convenient customer account ledger, presenting all essential statement information—to which current transactions are posted simply by filing the daily records tabulated in continuous form. The originator, Mr. C. M. Weaver, describes this highly successful innovation in PS. 23.*

Also in this magazine: *Work Simplification*, the Scientific Method, by a leading authority. Today our Representatives are employing this technique on behalf of customers—re-examining Standard Register systems, applying auxiliary devices and equipment—for further savings.
Record systems actually simplify paperwork when you:

A. *Develop the best procedure*
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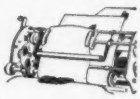
These are the *three* avenues for complete improvement of any system, for maximum savings in time and office manpower.

*Write for copies of Paperwork Simplification (PS) free. The Standard Register Company, 709 Campbell St., Dayton 1, Ohio.

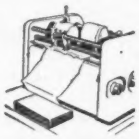
KANT-SLIP continuous forms

Feeding-aligning devices: THE REGISTRATOR PLATEN

AUTOMATIC LINE FINDER
Advances form into new writing position in one motion



DUAL FEED
Registers 2 different forms for 1 continuous typing operation



BURSTER-IMPRINTERS
Sign, date, number, trim, tear off, stack Kant-Slip forms

FORM-FLOW REGISTERS
Better records . . . by hand

UNIT ZIPSET FORMS
Carbon interleaved

". . . The magazines seem to pose a less urgent problem than the dailies . . ."

HEARST starts on p. 110

lost less advertising during the first half than the dozen Hearst Consolidated dailies. And Publishers Information Bureau data show that the eight domestic magazines were doing comparatively better.

In 1951's first half, six of the eight U.S. magazines lost 294.5 pages of advertising compared with 1950. Two of them sold more space. So there was a net loss of 102.5 pages. On the revenue side, the picture was brighter. Rate increases enabled five of the eight to show a higher gross. It's likely that for all eight, the gross was up $400,000 or more. That isn't much on a total gross in excess of $15-million, and no publisher likes to see the linage decline. Still, the magazines seem to pose a less urgent problem than the dailies.

• **Radio**—Data on the three Hearst radio properties are even skimpier, but they indicate no problems. Since 1938, and following the sale of the bulk of the stations, Hearst Consolidated, which owns WCAE, Pittsburgh, has received revenues yearly averaging $830,000.

The Hearst Consolidated balance sheet presents another problem. There now are arrears of $10.9-million in dividends against the Class A preferred stock. About $9.9-million of this is now seven years old—outstanding while earnings were at their highest. For almost three years, the stock hasn't sold up to its $25 par (7% cumulative participating), has sold as low as $14 (this year).

III. Whom Do They Have?

Increasingly, these days, investment analysts seek to know who's in charge of a property. On the basis of experience, Hearst Consolidated would get high marks. A majority of today's officers and directors were officers or directors six years ago. Many of them have been high in the organization for years.

Those who speculate figure that Richard E. Berlin, for a decade president of the Hearst Corp., is the most likely top man to guide the reins until one of Hearst's five sons takes over. Berlin came up as a space salesman for Hearst Magazines, Inc., sold enough to become magazine general manager in somewhat over a decade, Hearst Corp. president in 11 years more.

• **The Heirs**—Among the sons, the consensus is that No. 1 will be 43-year-old W. R., Jr., second son and the one who's done most so far. Hearst men will tell you a major problem of his has been that he was placed too high

One of a new series of advertisements designed to tell the G-E Silicone Story to Industry.

HOW YOU PROFIT FROM G-E SILICONES'

indifference to temperature extremes

One of the big, important advantages of General Electric silicones is their ability to withstand extremes of heat and cold.

For example, products made of G-E silicone rubber remain flexible and serviceable at 500 F! And processes utilizing G-E silicone oil continue to function even when the temperature has dropped well below zero. Silicones are also ideal for applications subject to widely varying extremes of temperature.

Industry is currently making much use of silicones' indifference to heat and cold. *Where can you put this ability to work in your business?*

Silicones Resist Heat!

Resistance to high temperatures has gained wide use for G-E silicone rubber in many applications. For example, ring gaskets made of this heat-resistant material for use in jet engine assemblies won't deteriorate under high heat—help keep 'em flying!

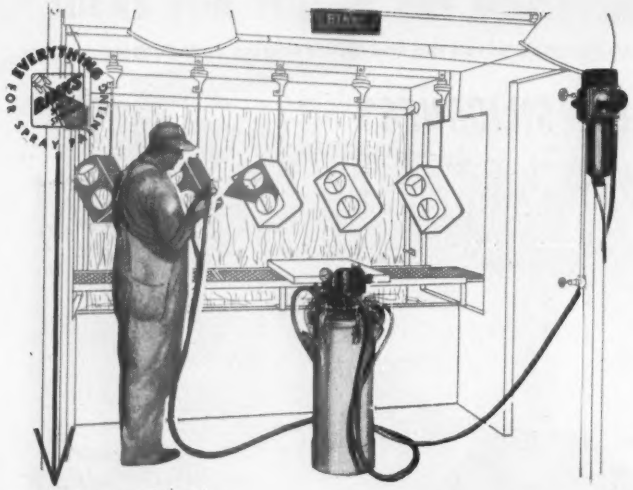
Silicones Resist Cold!

If you chill test tubes containing *silicone* oil and petroleum oil to a temperature of —50 F, you will find that the silicone oil remains free-flowing while the petroleum oil becomes stiff and congealed. This cold-resistant property makes G-E silicones important for lubricating delicate instruments subject to low temperature extremes.

HOW CAN YOU USE G-E SILICONES PROFITABLY?

If you've been looking for a material with a marked indifference to temperature extremes, it will pay you to investigate G-E silicones. Keep in mind, too, that the other important properties of silicones (chemical inertness and the ability to keep things from sticking) may help you improve your processes or products. For details on how G-E silicones may work profitably for you, write to Section N-3, Chemical Department, General Electric Company, Pittsfield, Mass. (In Canada: Canadian General Electric Company, Ltd., Toronto.)

GENERAL ELECTRIC



only BINKS

integrated spray painting equipment

gives you all these important advantages

a complete line

Here, from a single source, is everything you need for spray painting...from spray guns to complete finishing systems. Every item in Binks complete line is engineered to give peak performance as part of an integrated system where all units work in harmony.

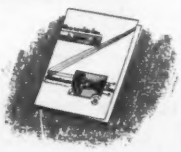
standard interchangeable fittings and connections

Every connection and fitting on Binks equipment has a common *standard* pipe thread that anyone can duplicate. This standardization greatly increases flexibility because it's easier to hook up and transfer Binks equipment.

nationwide service

You can get technical help on spray painting problems within a few hours. Each Binks Sales and Service Office provides both engineering counsel and 24-hour service on parts and repairs.

SEND NOW for Bulletin 10. It lists hundreds of products painted by modern spraying processes and illustrates many unusual and outstanding installations. Tells how you can get better finishes—faster—and at lower costs. Bulletin 10 is especially valuable for those interested in defense production. No obligation.



Binks

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". . . Among the sons, the consensus is that No. 1 will be W. R., Jr. . . ."

HEARST starts on p. 110

too soon. He was president of the New York American—later the Journal-American—before he was 25 and became publisher of the American Weekly and Puck, as well, after the war. Last month he became president and director of Hearst Consolidated, which puts him in a "live ammunition" zone, if anything could.

Insiders also speak highly of Randolph, at 35 publisher of the San Francisco Call-Bulletin. A man who knows each well criticizes Randolph only for being too young, W. R., Jr., for not yet having really gone to work.

• **Editorial**—Particularly strategic during the transition will be the spot of J. D. Gortatowsky, vice-president and general manager of Hearst Consolidated before Hearst's death, now board chairman and reportedly the top editorial figure for all the dailies.

While he lived, Hearst was editor-in-chief of everything he published. You could like his stuff or despise it, but Hearst called the plays—"until just hours before we got the flash that he died," insists one big city managing editor. Now, since a strong leader is particularly useful to an editorial operation, Gortatowsky looms large—with a large hole to fill.

You can find Hearst men who insist that "The Chief" trained his top men long enough and well enough so that the ranks can be closed effectively. Others duck the question.

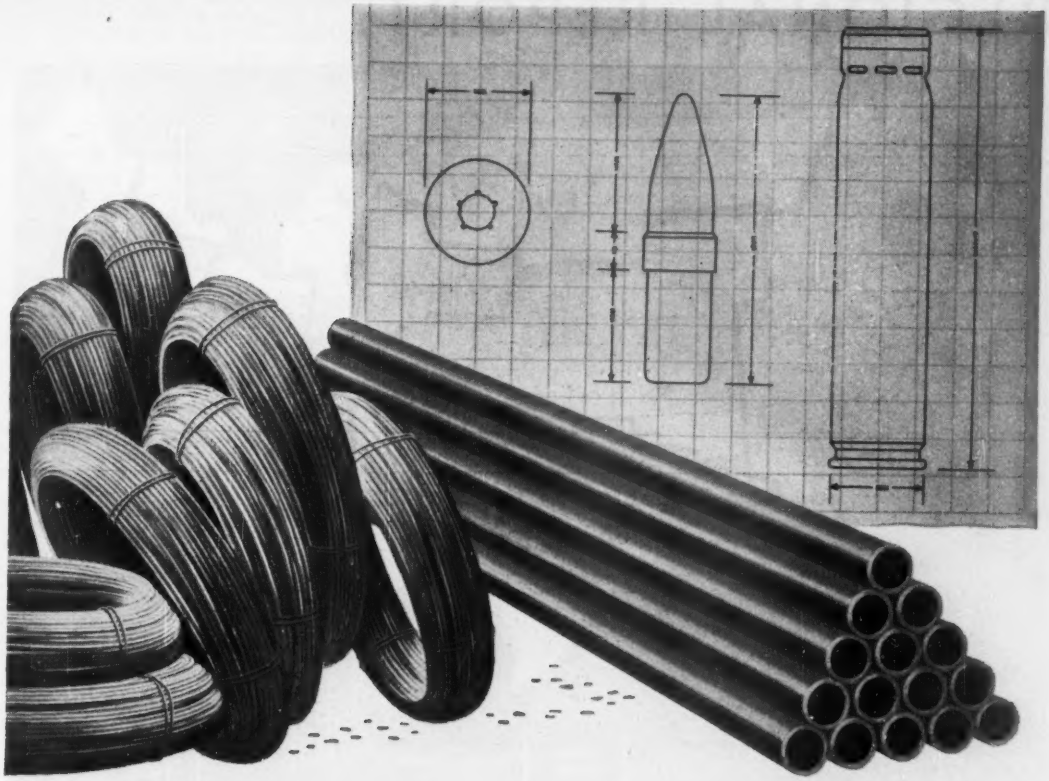
Officially, Hearst journalism will remain as is. On their appointment by the court, the executors said:

"The companies are in sound condition, and the policies of Mr. Hearst will be continued and executed in accordance with his will and wishes."

• **Cash or Credit?**—The trade doesn't buy that completely. It has always been a Hearst dream—or boast—to publish papers that were first in their communities. But a change is hinted by this remark by a Hearst veteran: "I've heard Dick Berlin say that he'd rather publish profitably the third paper in the field than publish the first paper unprofitably."

One thing is certain. If the executors abide by Hearst's wishes, they will think twice before they fold any daily, even if it's losing money. The will says in part:

"I request my executors . . . not to part with the ownership or control of any newspaper . . . unless it shall, in their opinion, be necessary or prudent to do so."



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Now you can utilize up to 90% of the steel stock on ordnance work, and eliminate several chemical treatments and anneals! Now you can increase wire drawing speeds up to 50%, as well as double the life of your dies . . . all because of Foscoat, Pennsalt's new metal treating process.

The Foscoat Process consists of compatible cleaning, pickling and finally the application of a new phosphate coating together with specially-developed lubricants. This produces a heat-resistant surface that remains unbroken even under the most severe forming strains.

Foscoat works equally well for tube drawing, deep drawing, stamping, ironing and heading.

In all these operations the use of Foscoat has resulted in substantial savings by eliminating intermediate pressing, annealing and chemical treating operations . . . by increasing the output of existing equipment . . . by reducing the consumption of chemicals . . . by cutting scrap losses . . . and by extending the life of costly dies.

If you have a problem in the cold forming of steel, outline it on your letterhead and we will tell you how the Foscoat Process can improve your operations. Pennsylvania Salt Manufacturing Company, 1001 Widener Building, Philadelphia 7, Pa.

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REGIONAL REPORT

Federal Reserve District	July 1951	June 1951	July 1950	Federal Reserve District	July 1951	June 1951	July 1950
1. Boston	228.5	229.6	196.8	8. St. Louis	275.1	270.4	244.8
2. New York	249.4	248.2	216.4	9. Minneapolis	291.8	294.0	264.5
3. Philadelphia	248.0	246.9	219.0	10. Kansas City	312.5	319.0	275.2
4. Cleveland	264.6	265.8	228.6	11. Dallas	352.8	349.2	308.8
5. Richmond	284.8	282.9	242.4	12. San Francisco	307.5	305.0	267.8
6. Atlanta	315.7	312.1	278.4	U. S. Composite	275.5	275.0	240.6
7. Chicago	270.6	271.8	237.8	1941 = 100, seasonally adjusted. July figures preliminary; May revised.			

Big Upsurge in Income Is Still Ahead

The rise in income continued in July. But the pace was even slower than it has been in recent months. The future outlook is beginning to firm up a little, however; the timing of the start of more sizable increases is becoming a little clearer.

The big upward surge is still a good way off. It probably won't come earlier than next spring or summer, when a sizable number of new plants now being built or tooled get into production.

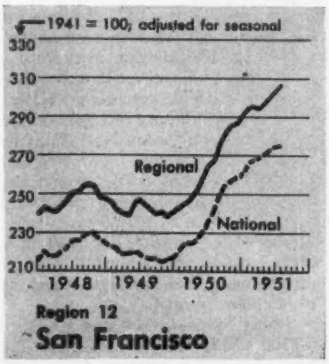
These plants will need production workers, lots of them, and the only way they're going to get them is by attracting new workers into the labor force (older or handicapped men, and women)—or by taking workers away from existing plants who in their turn will have to recruit new workers. It's this increase in the labor force, primarily, that will drive income upward at that time. The major beneficiaries of the move are likely to be the Chicago and Cleveland heavy-industry regions.

But in the meantime, there's likely to be an intermediate quickening of the income rise. This should start appearing with the indexes for September or October and continue at least through the end of the year. The reason: the more-than-seasonal fall increase in civilian goods industries that have been in the doldrums since spring. Among these are textiles and apparel; an increase in activity here would mean an income boost for New England, New York, and the two southeastern regions, Richmond and Atlanta.

The July rise in income was made up mostly of small gains in some regions balanced by equally small losses in others. Biggest increase was registered in the St. Louis region (page 127), big-

gest loss was in the Kansas City region, hard hit by the July floods.

The outlook for most of the country's farming areas is getting better and better. Net farm income for the year for the country as a whole now seems to have a good chance of setting a new all-time record, topping the peak reached in 1947. This will mean a continued high level of purchasing power and demand for consumer goods and farm equipment in most of the country's rural areas.



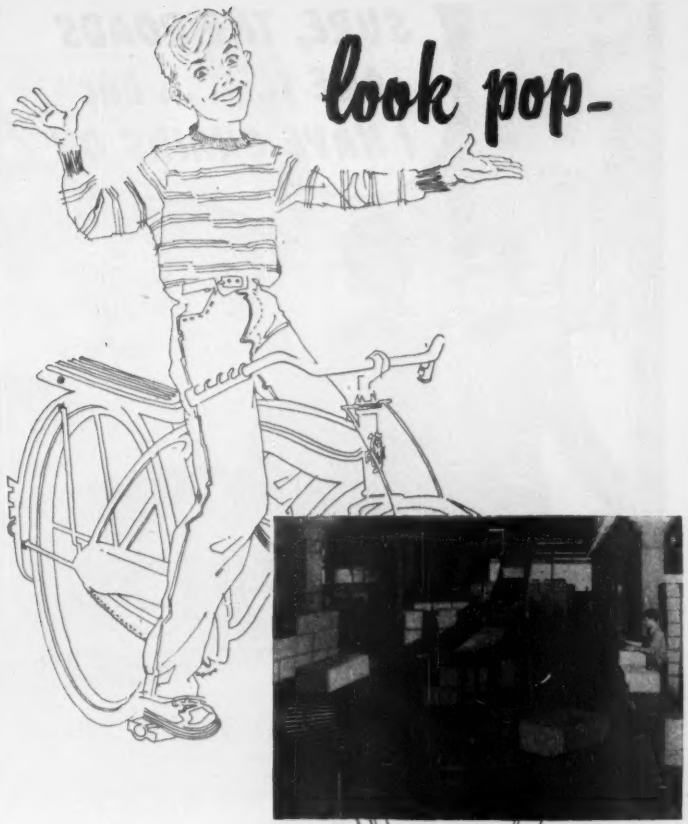
BUSINESS and employment in the region as a whole are at new peak levels. Biggest boost for employment comes from agriculture, which hits its seasonal high throughout the region this month and next. In California, the big harvest employment now is in cotton and tomatoes; in in Oregon, apples and hops; in Washington, apples, hops, and sugarbeets; in Idaho, potatoes, peaches, and beets; in Utah, tomatoes and beets; in Arizona, cotton.

All states expect some shortages of pickers, with California cotton and tomato growers the most worried.

• **Lumber Weak**—Nonagricultural employment is also rising over-all. But there are several weak spots, among them lumber and lumber products, apparel, and automobiles. The driest summer in years in the Northwest forced the closing of many forests to logging operations for fear of fire. Rains early this month put the loggers back in the woods again, but the market for most lumber products is very weak.

The market for plywood has been slipping lately; if plywood joins the drop-off in most other types of lumber, the prospects will be very serious.

• **Manufacturing**—As of the first of this month, Oregon unemployment was up for the third straight month to 14,000—only 1,000 below a year ago. It would have been worse except for the strength in manufacturing industries, particularly those working on defense contracts. Metalworking is going at close to capacity in the major northwestern centers—



no hands...It's a fact that in this Defense Emergency, manpower must be conserved, and that package handling problems must be given their deserved attention. You will not dispense with everyone and do the job with "no hands", but you'll find that an Alvey Conveyor System will help you: (1) Cut down on the cost of moving parts and materials in your plant (2) Streamline your operations, and probably pay for itself in short order. Let's put the latest approach on conveying methods under consideration for your plant program. Write today.

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Portland, Tacoma, Seattle. In addition government payrolls are continuing to expand at Hanford, Bremerton, and a score of smaller centers. And Boeing continues to add steadily to its work force.

The big black cloud over the Northwest is power. A major shortage is feared; if it becomes critical, many industrial plants, including aluminum pot lines, will have to shut down. The only thing that will save the situation is a "good" water year; even average stream flow is going to result in some shutdowns.

• **Bay Area Busy**—In California, the San Francisco area is moving along at a good clip, largely due to defense activity. Electronics firms have begun expansions to handle defense orders. Shipyards in the area have just got contracts for reconversion of six Navy ships and construction of five new freighters. Food processing is at its seasonal peak. Government employment continues to rise.

Weak spot in the Bay area is apparel; employment is beginning to pick up seasonally, but the high is expected to be below normal.

• **Strong Spots**—Other strong spots in central California are Sacramento and Stockton. But the strongest area in the state is southern California. In the first 11 months after Korea, $2.8-billion in defense contracts went to California. Los Angeles got $1.8-billion; San Diego got another big chunk.

In Los Angeles there is considerable weakness in apparel, autos, television, furniture, and lumber products. In the larger region, however, including San Diego, San Bernardino, and Fontana, the picture is pretty much one of full and expanding employment.

• **Copper Hurts**—In both Utah and Arizona, this month's copper strike was a severe blow, but activity is just about back to normal now. Metals and government hiring are the two strongest forces in Utah today; labor shortages are so acute at Tooele that the government is hiring women there for jobs formerly open only to men.

Utah's coal-mining employment, which had slipped steadily until August, is now rising. But a shortage of railroad cars for coal shipment is holding it down.

And oil prospecting has created a considerable boom in the Uintah Basin; the state employment service office at Vernal, Utah, reports a big rise in employment of oil workers and technicians, also a rise in both industrial and housing construction, which has resulted in an influx of construction workers.

Biggest factor in Nevada is the progress on the titanium plant at Henderson. Pilot-plant production will begin shortly, and full production is scheduled

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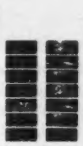
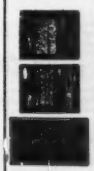
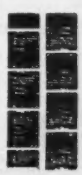
both sides of records simultaneously side by side



one side only using full width of film



one side only—down half the film, up the other half
(doubling film capacity)



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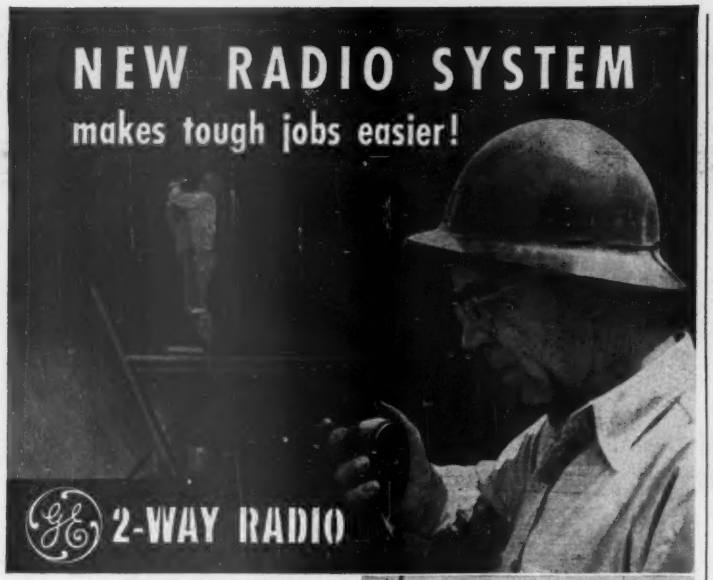
makes tough jobs easier!



2-WAY RADIO

"A Race Against Time," is the way electrical superintendent George Patrick describes tunnel driving. To speed assembly of manpower and materials where they will do the most good, he uses radio (above).

Nine Miles From Headquarters—but instantly by radio. From one end of 6-mile tunnel supervisor talks into hand microphone, directly to field office.

For Fast Action and fewer headaches on a time consuming job, the Frazier-Davis Construction Company has an answer—*radio communication.* In driving a 6-mile tunnel through solid rock these contractors use G-E 2-way radio to coordinate work and save time at job sites miles apart. Project supervisors, in their cars 75% of the time, communicate by mobile radio with field offices, supply points, and tunnel crews over a 60-square mile area.

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More Water For New York City will be the end result of this 2-year project in the Catskills near Grahamsville, New York.

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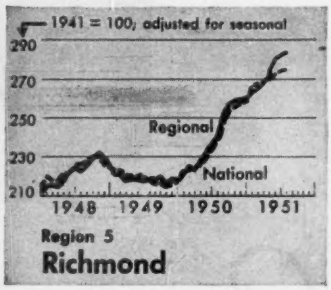
GENERAL ELECTRIC

for next fall, with employment of 1,000 workers. Total factory employment in the whole state today is only 3,500.

• **Good Crops**—Farm income in the region will be high this year.

The cotton crop is in superb condition. California has had less than 1% abandonment; Arizona's record is nearly as good. The crop, totaling more than 2.6-million bales, is close to double last year's in both states.

In the Northwest, the hops crop will set an all-time record. This area is also harvesting a bumper crop of spring wheat. But its fruit crops, particularly apples, are mostly below par.



INCOME continues its slow, steady rise. This region is the only one where income has not shown a decline in at least one month this year; it has risen continually since the end of 1949.

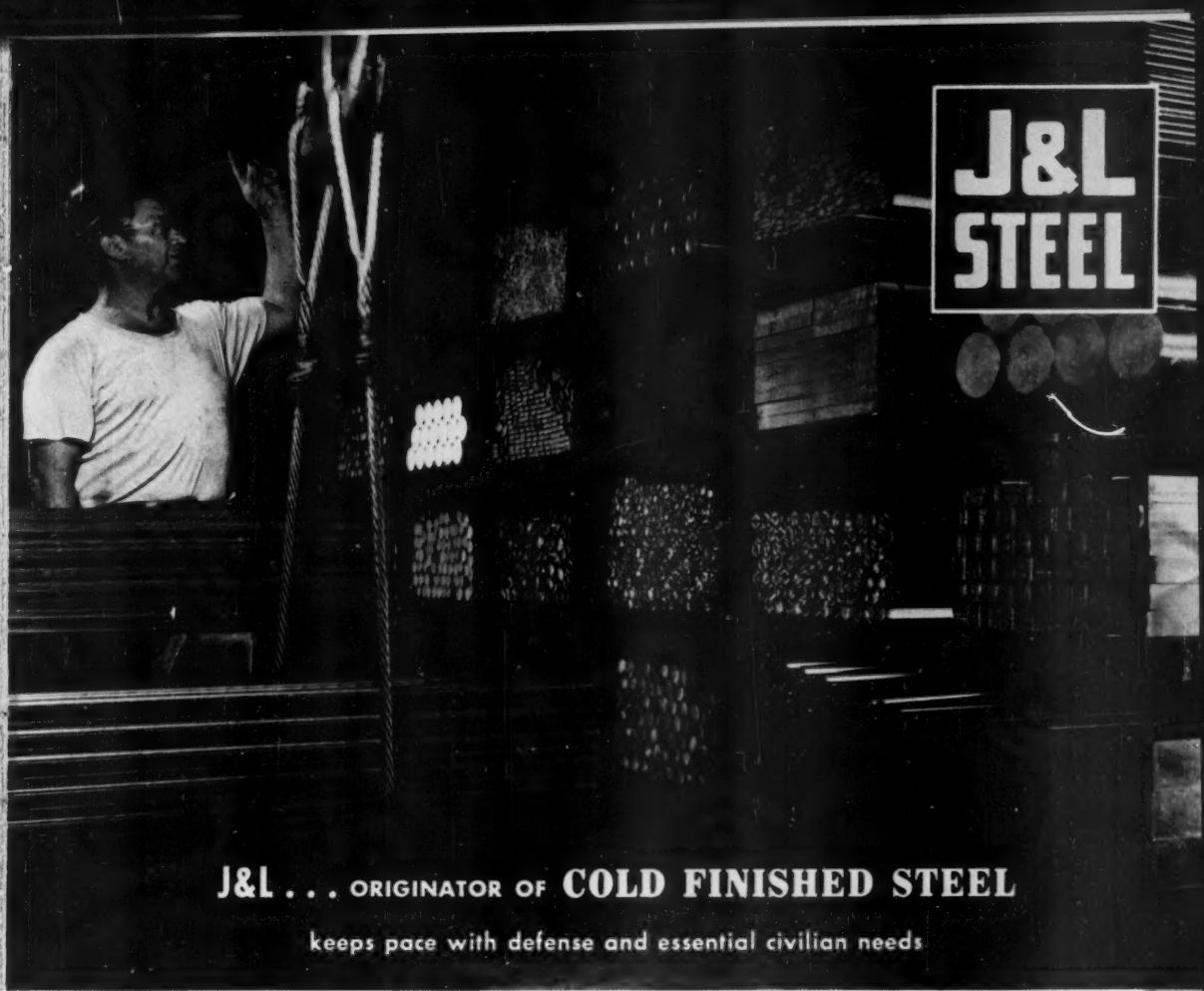
In recent months, the rise has been made up of conflicting factors. Heavy-goods manufacture and farm income have been going up, while most light goods and mining have been going down. The outlook for fall and winter is very good—the factors that have been strong should continue strong; many of those that have been weak show definite signs of a pickup.

• **Textiles**—Take textiles, for instance. The industry has been slumping ever since April. Many yarn and hosiery mills have been operating as few as three days a week; others have shut down entirely for a week or more to keep from getting too far ahead of orders.

Today, however, textile men throughout the region are very hopeful about the fourth quarter. Since early this month, they report, there has been a marked revival in demand. Another favorable sign is the forecast that military buying of textiles will be rising.

• **Furniture**—The furniture industry is another example. Three months ago manufacturers' backlogs had fallen way off, and retailers had not only stopped ordering, but were canceling existing orders or asking that shipments be deferred.

Today retail inventories are being rapidly cleared of spring and summer lines. Also, prices on fall and winter



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keeps pace with defense and essential civilian needs

Color photograph by Camellus

Back in the 1850's in the days before steel, a J&L workman, while passing hot iron bars through a rolling mill, accidentally let go of his iron tongs—allowing them to pass between the rollers.

An alert superintendent noticed that the flattened tongs had a hard, smooth, bright finish. He began to experiment. New machinery was designed and built—a U. S. patent was issued in 1860 . . . And thus began the practice of finishing iron and later steel while *cold*.

Cold finished steel bars, like those shown racked above, are used by the metal working industry in a variety of ways . . . flats for jigs and base plates in the automotive industry . . . squares for machine parts.

But most of the cold finished steel shapes made by J&L—the rounds, hexagons, and small squares—are sold to machine shops where high speed lathes or automatic screw machines turn out millions of finished parts similar to those shown below. These vital parts go into engines for tanks, planes, trucks, automobiles, and agricultural equipment. They form the intricate "brains" of business machines and make up the working parts of typewriters, electric appliances, refrigerators, and washing machines, guns, and rifles.

J&L Cold Finished Steel is made in hundreds of grades and in all standard round, square, flat, and hexagon shapes. In addition, many *special* shapes and grades are made to meet customers' specifications.

J&L Metallurgists have introduced many "firsts" in the steel industry through the years. "Firsts" in the cold finished steel field include *Jalcase*, the original free-machining, case-hardening, open hearth steel, and more recently, the revolutionary and patented *"E" Steel* which provides even faster machining, longer tool life, better finish.

J&L expects to increase its steel ingot capacity by 1,560,000 net tons in the next 15 months—enough additional steel tonnage to build 40,000 thirty-ton tanks . . . an expansion necessary to help fill vital defense and essential civilian demands for more and better steel.

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UNDERCOVER ANSWER TO A HOT PROBLEM

Oven-fresh coke may be well over 350° hot when hauled away from the quenching area by a rubber covered conveyor belt. That is why ordinary belts lead such a short, scorched life when used for handling coke, or sand, or lime, or sinter (roasted ore) as well as other materials that are hot.

To solve such problems, Hewitt-Robins developed belting built up inside with plies of Fiberglas*, cotton, asbestos and synthetic fabrics—and covered outside with especially developed and compounded rubber and synthetics. The fabrics contribute to high dimensional stability and tensile strength; the covers resist heat and abrasion. Both combine to give Hewitt-Robins Hot Materials Conveyor Belting much longer service life.

Hot Materials Conveyor Belting is one of many Hewitt-Robins "firsts" in materials handling belting, machinery and techniques. It is a product of an organization unique in its field. Only Hewitt-Robins can deliver—from within its own corporate structure—all three elements of a belt conveyor system: engineering, machinery *and belt*. Only Hewitt-Robins can assure individual responsibility for their successful operation—because only Hewitt-Robins makes them all.

When the handling of materials—hot or cold—is your problem, we invite you to make it ours. Our three industrial divisions are ready, individually or collectively, to meet your needs..

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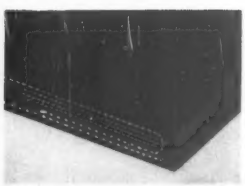

HOT MATERIALS CONVEYOR BELTING leads the list of many special types introduced by Hewitt-Robins since Thomas Robins invented the rubber-covered conveyor belt in 1891.

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lines introduced at the July shows were somewhat lower. As a result of these factors, buying is picking up, and the High Point (N. C.) furniture manufacturing area is optimistic.

Exception among the light industries since April has been tobacco, particularly cigarette manufacture. It has been booming right along, and business is continuing to increase.

• **Heavy Manufacture**—Heavy industry, particularly defense industry, has been busiest of all. Standout is the aircraft industry; the Glenn Martin plant at Baltimore and the Fairchild plant at Hagerstown have been hiring steadily. Hagerstown reports just about full employment, with considerable inmigration of new workers. Martin has upped its employment from 8,800 at the time of Korea to about 18,000 today. And employment is still rising.

The Martin plant is the chief reason why business activity in Baltimore is now at an all-time high. The city's machinery and metalworking plants are also booming. But some of the civilian industries are having trouble getting materials. And the important apparel trade is definitely weak.

• **Ports**—One other contributor to Baltimore's strength—the port—has been exceptionally busy. The same thing is true of the region's other major ports, Charleston and Hampton Roads. Other strong spots in the region include Richmond and Charlotte. Winston-Salem and Greensboro, North Carolina's major tobacco manufacturing centers, are also doing well.

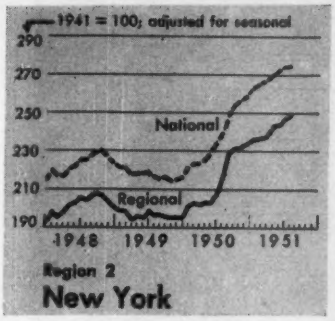
Most of the areas that depend primarily on textiles are weak at the moment, but should pick up through the rest of the year.

• **Crops**—Farm income in the region should be close to the all-time high, despite too-hot, too-dry weather in recent weeks. In the Shenandoah Valley, the apple crop is estimated at 11-million bu., some 2-million above average. In both West Virginia and North Carolina, the apple crop is both big and of good quality.

The hot, dry weather has been good news to the cotton farmers of the Carolinas. The two states expect to harvest almost 1½-million bales this year, compared with only 586,000 in 1950. So income will be much higher despite the substantial drop in price.

• **Tobacco**—The important tobacco crop is also better than both last year's and the average for most places in the district. And prices at the opening markets are down only slightly from last year. So income from this source, too, will be high.

The one place where the drought may do serious harm is the region's expanding livestock enterprises. Pastures are being badly burned, and enforced marketing is in prospect.



EMPLOYMENT continues to rise slightly in the district as a whole. The bulk of the increase is in manufacturing, most of it in the durable-goods industries. Thus in New York State total employment is about 4% ahead of a year ago, manufacturing employment is 7% ahead, and durable-goods employment close to 15%.

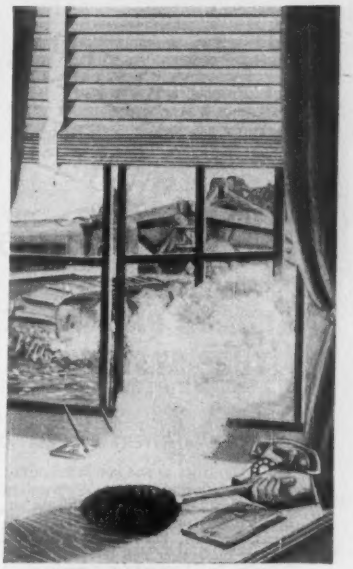
Biggest gainers over the year among individual industries have been machinery, transportation equipment, and metal fabrication. Among the weaker industries are lumber products, leather, and textiles.

• **Strong Spots**—As might be expected, the strongest sections of the region are those in which durable-goods manufacturing is most important. Much of northern New Jersey is in this category; so are Bridgeport, Schenectady, Buffalo, Syracuse, and, to a somewhat lesser extent, Rochester.

Labor in the Buffalo area is very tight. Hiring at the rapidly expanding defense plants is more than making up for scattered layoffs in civilian goods factories. Take General Motors, for instance. Employment on its automotive operations has dropped over 1,000 in recent months—mostly by failing to fill vacancies. But Chevrolet's aviation engine division at Tonawanda has a $20-million expansion under way and plans to add 3,500 men.

• **Peak Passed**—In Syracuse, factory employment has already passed the World War II peak. And it's certain to go on rising; there's an unprecedented amount of plant expansion now under way in the area, including Carrier Corp., GE, Western Electric, Crucible Steel. Allied Chemical has announced a $10-million expansion at Solvay. And GM's new plant will cost more than $15-million.

Rochester's economy is very strong, despite a few soft spots. Chief among these is the important men's clothing industry. Openings of spring lines are usually held in August; they have been generally delayed this year until the end of this month. The main reason is that retailers just didn't want to look at new stuff until they had a chance to size up their own fall business. Many



Fuller's "Hungry" Duster Gobbles up Dust!

You will find a Fuller Dry Duster more economical than dust cloths. Fuller Dusters are built of our special cotton yarn — whose millions of tiny fibrils reach out and hold (instead of scattering) huge quantities of dust.

In Fuller Dry Dusting Mops you will also find this special yarn, developed by our laboratory and produced under its supervision.

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Reported by Users of
STANDARD PNEUMATIC TUBE SYSTEMS

SAFE — SWIFT DELIVERY BY "AIR" OF MESSAGES — MONEY — MERCHANDISE!

Savings as high as $10,000 in 9 months' time are reported by users of Standard Pneumatic Tube Systems — filling orders, moving merchandise, money, messages, records, between departments. Reduce messenger and telephone service. Can be installed for a wide range of needs in stores, warehouses, manufacturing plants, offices. Write for Bulletin No. 11 and complete information — address Dept. BW-91.

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Write for Bulletin No. 11 — Standard Pneumatic Tube Systems. Address Dept. BW-91.

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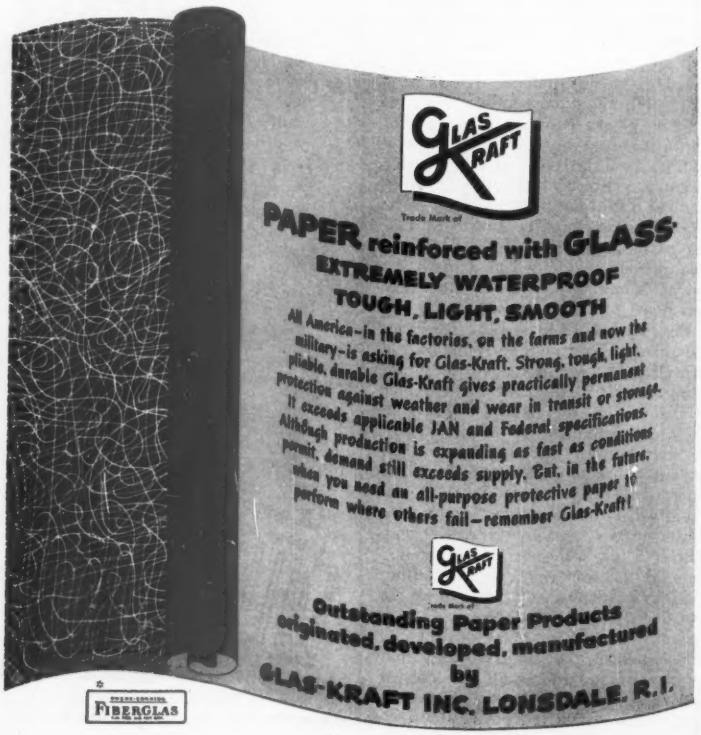
CONVEYORS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PAPER reinforced with GLASS
EXTREMELY WATERPROOF
TOUGH, LIGHT, SMOOTH
All America—in the factories, on the farms and now the military—is asking for Glas-Kraft. Strong, tough, light, pliable, durable Glas-Kraft gives practically permanent protection against weather and wear in transit or storage. It exceeds applicable JAN and Federal specifications. Although production is expanding as fast as conditions permit, demand still exceeds supply. But, in the future, when you need an all-purpose protective paper to perform where others fail—remember Glas-Kraft!
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plants extended vacations or had temporary layoffs in some departments.

But most of the city's other industries are booming. Employment is only about 5% below the wartime peak. Skilled workers of all types are short, particularly machinists, toolmakers, and welders; most big plants have started training programs.

• **Special Case**—New York City continues to report relatively larger unemployment than the rest of the region —and, indeed, than most of the rest of the country.

Few employers have any upgrading or training programs; the proportion of women in the labor force is comparatively low; and older workers have a hard time finding jobs. There aren't many occupations in which critical shortages exist; in fact, there are surpluses in lines that are considered critical nationally, including chemists, physicists, and chemical and civil engineers.

The future, however, looks a little brighter. There's considerably more defense work coming into the city than there has been; small machine shops, for instance, are getting an increasing number of subcontracts from out-of-town ordnance plants. Electronic and electrical machinery producers have considerable defense work.

• **Ups and Downs**—Elsewhere in the region, the Utica-Rome area is still well down in the dumps; its textile industry is weak, and it has been hit by several strikes, one of which resulted in the closing down of a 50-man plant. Auburn has registered a sharp recovery since last year; several new industries have come in to take the place of the closed-down International Harvester plant. And Danbury, thanks to the defense effort, is becoming less of a one-industry town (hats). An aircraft-parts plant has already opened there; a $5-million, 500-man bearing factory is being built now; American Cyanamid has taken an option on land where it may build a pharmaceuticals plant.

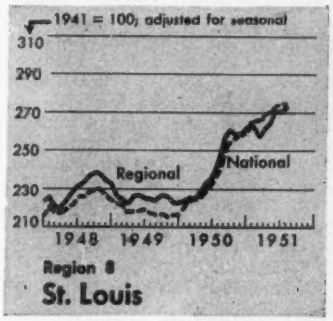
• **Farm Prospects**—Farm income in the region will be very good, though a little below earlier forecasts because of recent dry weather. The droughty area covers most of western New York and all of New Jersey except the extreme northern tip.

The corn and buckwheat crops are both badly in need of rain. Corn was estimated early this month at 30-million bu. in New York. That's a cut of 1½-million bu. from the Aug. 1 estimate, and the dry weather has continued since. Oats and winter wheat, however, were harvested earlier and beat the drought. Both crops were large.

• **Fruit and Dairy**—Most fruit crops are going to be unusually large, although the dry weather has cut the quality somewhat in apples and grapes. New

York's apple crop will be nearly 20-million bu., half again larger than average. Dry weather has cut 5-million tons off central New York's grape crop, but it will still be well above average.

The region's biggest farm-income producers—dairy and poultry—suffered less from the drought than the crops, because they're concentrated in eastern and northern New York, where the drought didn't hit.



ACTIVITY is beginning to pick up seasonally, after a summer of holding just about steady, with gains and losses balancing out. Over-all employment has changed little over the past three months. A few highly skilled trades are in short supply. But there is plenty of semiskilled and unskilled labor available in most parts of the region.

The western tip of Kentucky is, of course, the outstanding exception. Unemployment there is practically zero. The Atomic Energy Commission plant outside Paducah has about 10,000 construction workers on the payroll now, expects to reach a peak of 12,500 by Nov. 1—if it can find the men. The many other plants being built in the area make the problems that much worse.

• **Soft Center**—Evansville continues to have the most unemployment among major cities in the region. Factory employment there has picked up a little in the past few weeks. But the future is uncertain, and the picture is very dim when compared to last spring. Servel, for instance, has only 4,900 on its payroll now, down from 8,900; Briggs, which makes bodies for Plymouth, is down to 2,000 from 3,100.

As a result of these doldrums, there has been a big exodus of workers of all kinds from Evansville, mostly to the Paducah area. And that means that Evansville will be running into a labor shortage, particularly in the skilled trades, when such firms as Servel and International Harvester get into production on defense contracts next year.

• **Louisville at Bottom**—Activity in Louisville has been falling off slowly for

Which
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are best for
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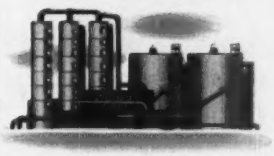
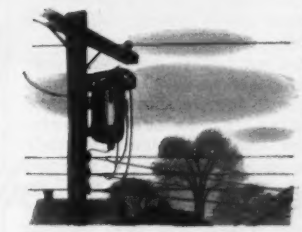
STAINLESS STEEL (Type 431) T-bolts by Harper are the vital connecting links of the V-bands that fasten the tail pipes to jet engines. In this service where terrific speeds and extreme heat and corrosion are real problems, lasting strength and corrosion resistance are of life and death importance.



PURE NICKEL machine bolts and nuts are needed by the thousands in the assembly of bubble caps and trays in chemical plant distillation towers. Here, 7-day-a-week operation, high temperatures and corrosive acids make heavy demands on equipment—good reasons why this manufacturer specifies Harper Everlasting Fastenings.



COPPER studs—made as "specials" by Harper—have the conductivity and corrosion resistance so necessary for the tap changer assemblies in power line transformers. Unattended, exposed to the worst weather—this equipment must be dependable.

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Why not talk it over with your own engineers soon? When you do . . . be sure to inquire about equipment utilizing "Freon" refrigerants. "Freon"-charged machines are widely preferred . . . widely used in all types of installations because "Freon" refrigerants are safe, dependable, of uniform quality and meet building code requirements everywhere. E. I. du Pont de Nemours & Co. (Inc.), "Kinetic" Chemicals Div., Wilmington 98, Delaware.

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several months and is now at the lowest level since February. But practically all industrial groups in the area agree that the bottom has been reached and things will pick up during the fall.

The distillers, with full warehouses in many cases, have had to slow down production; some plants are operating only ¼ to ½ of their bottling lines. But the trade expects next month to bring an increase in retail buying. Their biggest worry is that the proposed rise in liquor taxes will boost bootleg whiskey.

• **Machinery**—Most machinery manufacturers in the area are hungry for war orders. They are having a lot of trouble getting materials and foresee a cut in employment of up to 5% unless they get high-priority defense work. Furniture plants have been laying off workers slowly ever since May. And textile layoffs have been cropping up here and there in the past couple of months.

The tobacco industry, on the other hand, is booming. One local cigarette manufacturer reports August as the best month in history.

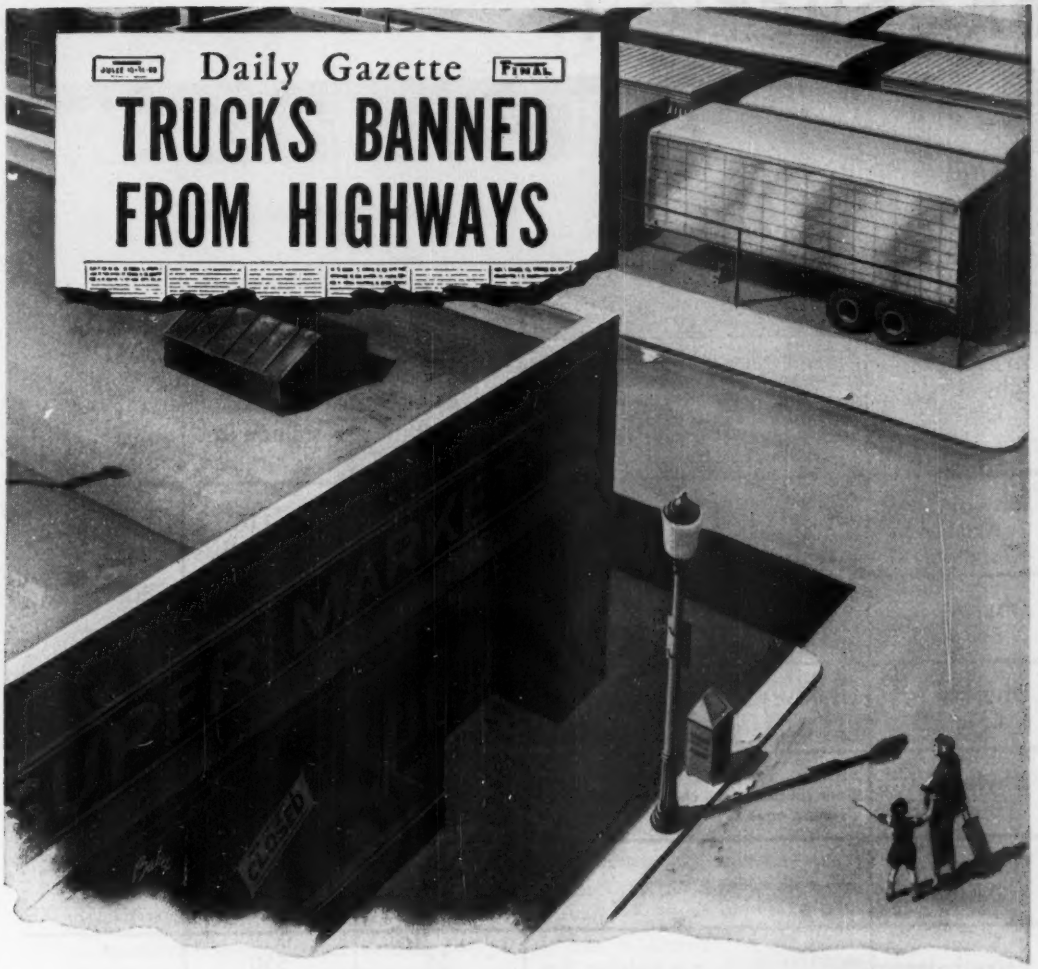
• **St. Louis Picks Up**—In St. Louis, employment dropped some during the summer, due to layoffs. But it has started to pick up well this month. It seems to be a case of a lot of companies with new war contracts hiring a few workers each, rather than a few big manufacturers hiring thousands. Across the river in East St. Louis, the rise in employment has slowed somewhat, but labor is tight and getting tighter.

Department store sales are down from a year ago in most parts of the region. Best showing is being made in smaller towns and rural areas—the result of good farm income so far, and a strong outlook for the rest of the year. This good record has been achieved despite weather conditions that obstructed farm work everywhere in the region except in southern Illinois.

• **Cotton**—The important cotton crop of the southern half of the region is going to be well above both last year's and the average. Heat and sunshine brought the crop to a good finish and kept down boll weevils, particularly in Arkansas. Only exception is Missouri, where wet weather forced abandonment of 12% of the acreage and brought the crop down to 320,000 bales, 15% below average. That's still 30% ahead of last year's small crop, though.

Near-perfect weather is bringing a bumper corn crop to harvest in southern Illinois. The Missouri crop is improving, but not enough to overcome earlier flood losses.

Good weather in Illinois has also helped the soybean crop; yield is expected to be the second-highest on record. Arkansas' soybean crop is also good; its 11-million bu. is the largest in the South. Arkansas will also have a bumper rice harvest.



Hey Mom! The Super Market's Closed!

THE Super Market . . . an amazing symbol of the abundant American way of life is deserted and empty! For, denied the vital services of the Trucking Industry, it has become physically impossible to supply the thousands of pounds of merchandise of every variety required by the average modern Super Market each shopping day.

Fortunately, the newspaper headline is fictitious. But if it were to come true . . . and some pressure groups seem intent upon bringing it about . . . the familiar Super Market would be just one of the casualties we would suffer from lack of Truck Service. The Trucking Industry has earned the support of the American people.

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Sales and Service Coast to Coast in the United States and Canada

PRODUCTION

Chemicals from Oil: A Growing Industry

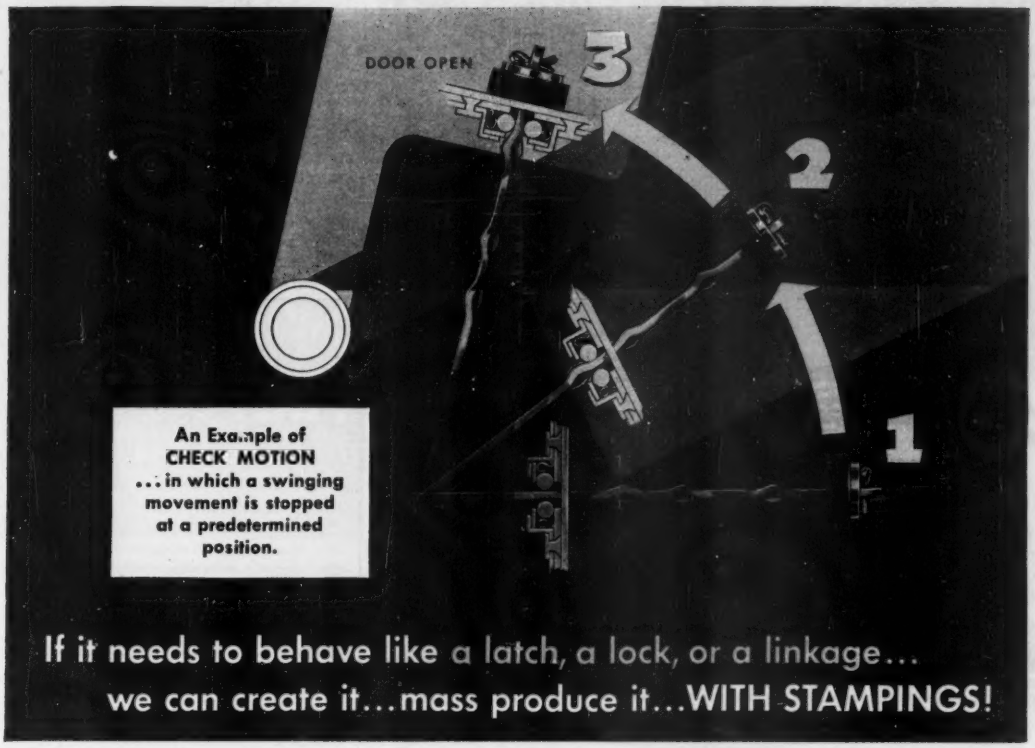
These Petrochemicals . . .	. . . have these uses	To produce these materials . . . . . we used this much ethylene in 1950	. . . we'll need this much ethylene in 1962	. . . for an increase of . . . %
Ethylene Oxide	Acrylonitrile for synthetic fibers; ethylene glycol antifreeze, explosives, industrial coolant, hydraulic brake fluid; to shrink-proof rayon fabrics; oil additives, plastics, paint solvents, detergents, emulsifiers, wetting agents, corrosion inhibitors.	483 million lb.	1,116 million lb.	231%
Ethyl Alcohol (synthetic)	GR-S and Buna N synthetic rubbers; solvents, refrigerants, antiknock compounds (tetraethyl lead); insecticides, rayon; intermediate for nylon manufacture.	495 million lb.	1,110 million lb.	224%
Ethyl Benzene	Styrene plastics, styrenated oils, GR-S synthetic rubber, plastic films and coatings.	173 million lb.	400 million lb.	231%
Ethylene Chloride	Tetraethyl lead, refrigerants, solvents, anesthetics.	137 million lb.	350 million lb.	255%
Ethylene Dichloride	Solvents, transformer oil additive, synthetic rubbers, vinyl chloride plastics, dry cleaning agents.	90 million lb.	200 million lb.	222%
Ethylene Dibromide	Antiknock fluids.	30 million lb.	50 million lb.	167%
Polyethylene	Plastic for electric wire insulation, films, paper coatings.	55 million lb.	550 million lb.	1,000%
Miscellaneous	Aviation gasoline components, poison gas, solvents, rubber chemicals, antiknock fluids.	73 million lb.	170 million lb.	233%
	TOTAL	1,536 million lb.	3,946 million lb.	257%

Petrochemicals Have Their Heyday Still Ahead

When the early oil well drillers labeled petroleum "black gold," they had no idea how far the Midas touch would reach. Or that chemists' magic would turn oil into a host of new materials—from soaps and synthetic fibers to insecticides and plastics. They thought of oil as a fuel rather than a raw material.

But the petrochemicals industry is already a booming business. And it hasn't seen its heyday yet. Judging by the plant expansion on the books today, it's due to swell four times by 1962.

• **The Forecasters**—A research study forecasting the boom has just been completed by two scientists of the Texas Co.: Dr. W. E. Kuhn, manager of the company's technical and research division, and chemist J. W. Hutcheson. But the same two specialists warn that petrochemicals are no get-rich-quick business: There are pitfalls—both technical and economic. Their report, which will appear in the Sept. 29 issue of Chemical Week, a McGraw-Hill publication, describes in detail both



An Example of CHECK MOTION ... in which a swinging movement is stopped at a predetermined position.

If it needs to behave like a latch, a lock, or a linkage... we can create it...mass produce it...WITH STAMPINGS!

What kind of a motion device is required in *your* product? Does it need to latch, lock, catch or trip? Must it slide, swing or rotate? Should it operate by a spring, a cam, a lever or a pedal?

Our specialty is designing such devices to perform in almost any manner the job requires. And when it comes to manufacturing, we mass produce them by *stamping*—to unusually close tolerances. And we can keep the price surprisingly low.

Perhaps this design experience and specialized manufacturing approach suggest new possibilities for improving the safety, performance or salability of your product. If so, our engineers would like to discuss these possibilities with you. Or write for a copy of our booklet, "We Make Motions", which further explains our facilities.

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How come? By breaking a production line bottleneck. How so? By changing over to grinding wheels of slightly different grain and grade. What wheels? Simonds Abrasive Company wheels . . . part of a complete line that may hold the answer to top grinding efficiency in your plant. Why not have a Simonds engineer assist in making a survey of your operations? It costs nothing and might pay you plenty. Write.

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". . . A populace clothed in oil isn't too far-fetched . . ."

PETROCHEMICALS begins on p. 130

the future of petrochemicals and the dangers to the unwary.

• **No Holding It**—The petrochemical industry was a mere toddler back in 1940. In just five years, though, its capital investment grew from $350-million to $1,200-million: Annual output shot from 4,100-million lb. to 10,500-million lb. Today investment has mushroomed to $1,950-million and annual output to 16,000-million lb.

If this rate of expansion continues, 10 years should see the industry's 1940 plant investment and capacity quadrupled and production of the basic petrochemical, ethylene, increased 2½ times. To put it another way, 25% of all chemicals produced in this country come from oil: By 1962 the figure should be 50%.

• **Head of the Family**—The basic building block for petrochemicals is ethylene gas. That's why the materials charted on page 130 are shown in pounds of ethylene. It comes from the process of cracking refinery or petroleum field gases, or it can be directly separated from refinery gas.

I. Ethylene Oxide

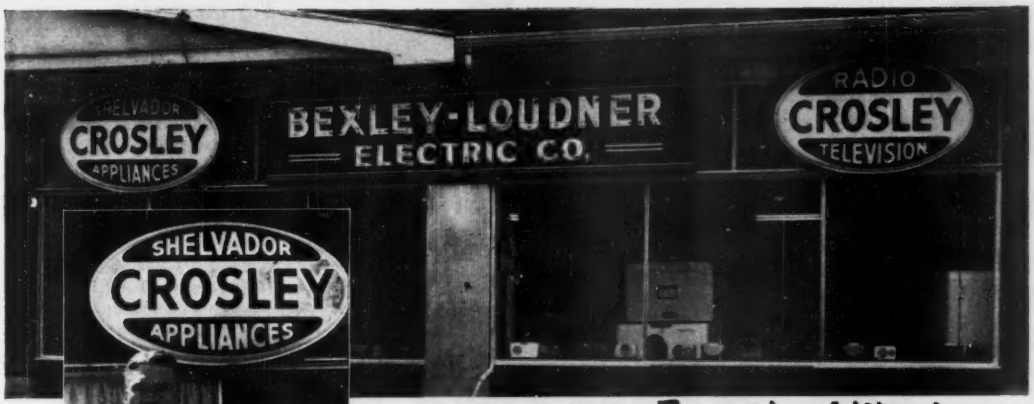
There are two main users of ethylene in petrochemicals; ethylene oxide and ethyl alcohol. In the ethylene oxide family, ethylene glycol is taking about 70% of ethylene oxide production.

Nearly three-quarters of the glycol output right now is going into automotive antifreeze. In the 1950-1951 season, about 47%—40-million of 85-million gal.—of automotive antifreeze sold was the glycol, or permanent, type. And by 1962 vehicle registration should shove the total antifreeze market to 100-million gal. Of that 55-million gal. will be the glycol type.

• **Soft—and Explosive**—Ethylene glycol does a good job of softening fibers, too. So it's moving in on glycerine's territory—a shift prompted by the shortage and rising price of glycerine. Even though glycerine production is expanding, ethylene glycol demand for this use is bound to increase.

While ethylene glycol has its soft side, it also goes into explosives. The biggest industrial need for it today is in making the explosive, ethylene glycol dinitrate. Its low freezing point assures it a fairly stable and well-established market in dynamite and other explosives for a long time.

• **Clothed in Oil**—Besides their many immediate applications, ethylene chemicals are getting a foothold in a field with a real future: synthetic fibers. A



Leo L. Loudner, President
Bexley-Loudner Electric Co., Columbus 9, Ohio

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Live-wire dealers are a premium asset for leading merchandisers. They are the strong last link between manufacture and sale! The sure way to win and develop wide-awake dealers is to identify them as *your* dealers. Dealers identified with your line sell more of your product!

Plastilux "500" signs make it easier to capture premium territory and win major victories in merchandising battles. Get there first with the best! Plastilux "500" signs, highly visible day and night, entrench your message where customers can see it!

Dealers welcome Plastilux "500" signs. They appreciate the low maintenance cost. Since only one line can be shown *outside* most stores . . . make it yours and it will be the leading line inside the store, too!

Write for complete information on what SIGNvertising will do for you and your dealers. Our SIGNvertising engineers are ready to serve you.

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COSTS LESS
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No shadows at any time!

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Unaffected by cold, rain or sun!

SIGNS IN ANY SHAPE OR SIZE —
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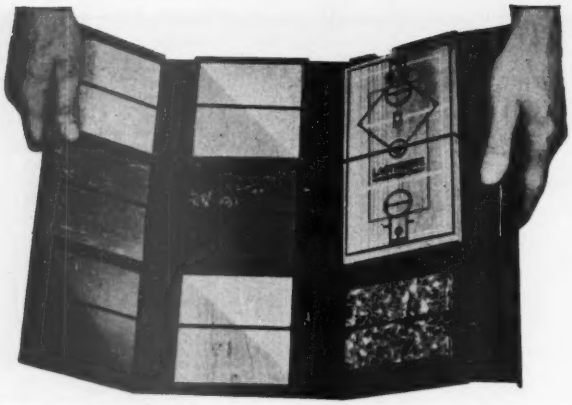

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" . . . Big increases . . . are in the cards for this year and next year . . ."

PETROCHEMICALS begins on p. 130

populace clothed in oil isn't too far-fetched, for the new fibers consist largely of petrochemicals. Take a look at the chemistry of four of the newer fibers:

- Du Pont's Dacron takes about 30% ethylene glycol.
- Chemstrand's Acrilan is about 85% acrylonitrile, another ethylene chemical.
- Du Pont's Orlon is practically all acrylonitrile.
- Carbide & Carbon's Dynel is roughly 40% acrylonitrile and 60% vinyl chloride.

By 1962 synthetic fiber capacity for these four fibers should total 473-million lb., a 350% increase over the estimated 1953 capacity of 135-million lb.,

• **Reaching Out**—While acrylonitrile is making its first showing in synthetic fibers, it has already had its baptism in other fields. For some time it's been a mainstay for both nitrile rubber—GR-A—and plastics. And its use in these products is growing all the time.

For one thing, nitrile rubber demand is spreading because of new applications—in resins and plastics. It's being combined with phenolic resins for molded articles and with vinyl resins for sheets. Big increases in this type of molding and sheets are in the cards for this year and next year.

• **Bear the Brunt?**—Rubber, synthetic fibers, and other uses, then, should boost acrylonitrile demand to 383-million lb. by 1962. But whether all this extra use will be reflected in the demand for ethylene oxide is a moot point. Acetylene is bound to be the major source of acrylonitrile some time in the future (BW—Jul.7'51,p42).

Even so, it's estimated that about 192-million lb. of the 38-million lb. of acrylonitrile produced in 1962 will come from ethylene oxide. That's seven times today's production.

Another ethylene oxide chemical—ethanolamine—is used in some detergents. And it's cleaning up a chunk of the soap market, which by 1962 is expected to top the 1950 market by 6%.

II. Ethyl Alcohol

Just about as big a user of ethylene as ethylene oxide is ethyl alcohol. Industrially, ethyl alcohol goes to work as a solvent, antifreeze, and chemical raw material.

Until the war, grains and molasses were ethyl alcohol's primary raw material sources. But wartime shortages of

these materials gave synthetic alcohol made from ethylene a real push, and it's been going up ever since.

• **Uses Diversified**—Consumption of ethyl alcohol in antifreeze is sure to stay fairly stable, even though varying winter conditions bring yearly fluctuations. The material also goes into hundreds of chemicals—mostly into acetaldehyde, used in dyes and plastics.

During the war, still another alcohol derivative—alcohol butadiene—was a key element in the synthetic rubber program. After the war, alcohol butadiene lost favor because of its high cost. But reactivation of synthetic rubber plants should revive ethyl alcohol requirements for rubber to about 180-million gal. annually by yearend.

III. Ethyl Benzene

Ethyl benzene, another ethylene offspring, finds its biggest outlet in styrene. Both GR-S synthetic rubber and polystyrene plastics are competing hard for styrene. Three major suppliers are expanding styrene production so that 670-million lb. will be available by the end of the year. Annual production should reach 1-billion lb. by 1955. Forecasts show that in 1962 GR-S will use 335-million lb., and plastic molders will need at least 900-million lb., for a total of 1,235-million lb.

• **Gaining Ground**—The ethylene plastic, polyethylene, too, is due to become an important poundage material. It is unmatched in low-temperature resistance. Most plastics get brittle when you freeze them—even with sizable plasticizers added. Polyethylene needs no plasticizers at all. And it's a lightweight material, so that, even though it costs more per pound than the heavier vinyls, it's cheaper to use. Polyethylene also has good electrical insulating properties, resists corrosive materials, and fabricates easily.

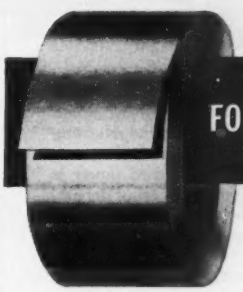
The biggest use for polyethylene up to 1948 was in electrical insulation. But two years later polyethylene sheeting and film—by then an important packaging material—took about half the total production. Flexibility at low temperature makes it a natural for packaging frozen foods. It's cheaper and more attractive than cellophane in some packaging uses.

In the next 10 years polyethylene will probably grow faster than any other ethylene chemical. It looks like a tenfold increase—from 55-million lb. to 550-million lb.—is in store for it by 1962.

• **No Sure Thing**—Despite the growing boom in petrochemicals, the business itself is still a hazardous one and not a sure moneymaker. You can't hope to make a killing in it on a shoestring. Here's why:

• Investment in plant is high. Pe-

typewriters tables & time-saving



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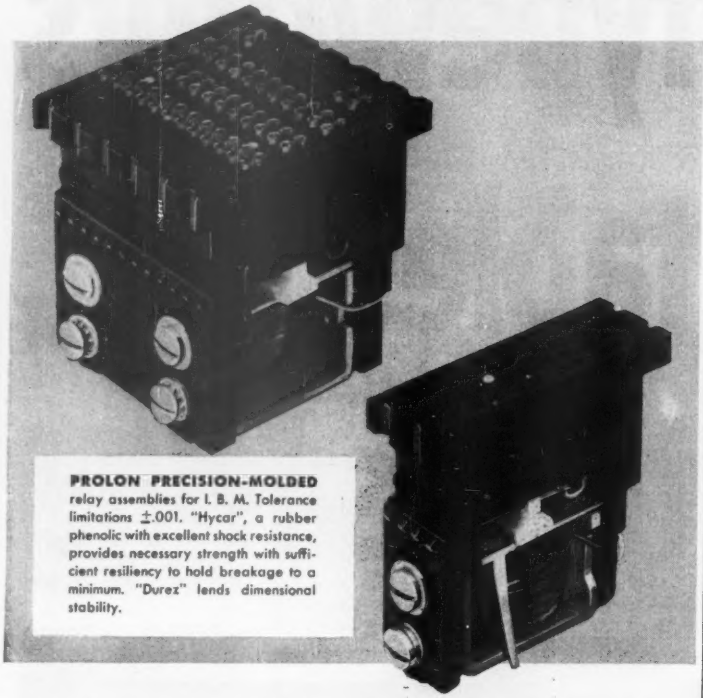
±.004? ±.002? ±.001?

Whatever the tolerances you need, we can work within them!



PROLON PRECISION-MOLDED relay assemblies for I. B. M. Tolerance limitations ±.001. "Hycar", a rubber phenolic with excellent shock resistance, provides necessary strength with sufficient resiliency to hold breakage to a minimum. "Durez" lends dimensional stability.

We have the experience, the facilities, the skill to turn out intricate, accurate moldings. During World War II, for example, Prolon made plastic parts for the Proximity Fuse, a job requiring skilled precision molding. Continuously for the past 10 years, we have been producing battery cases for use in Air Force planes.

Today, *as of now*, we are ready to go right into production on other defense projects. No waiting period for training personnel and adapting facilities! We have room to expand, if desired, and unlimited power is available. Our engineering department has the technical and practical experience necessary to advise on designs, on correct choice of plastic materials, on efficient molding methods, compression or injection. We make our own molds.

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troleum refining requires $4,280 in equipment per barrel per day. In petrochemicals, special alloy equipment, linings for vessels and lines, and the like raise the ante to $12,000.

• Vest-pocket operations can't compete with large installations. Ethylene costs 6.8¢ per lb. made in a plant with 10-million-lb. annual capacity; a 60-million-lb. plant can turn it out for 4.1¢ per lb.

• Utility requirements in petrochemical processing are high. Compared with petroleum refining, you need 10 to 20 times more fuel, 3 to 10 times as much steam and power, and 10 to 100 times as much water.

Plates Steel Pipe Doubles for Nickel

The defense program's squeeze on nickel is going to give a boost to the Bart Mfg. Co., Inc., of Belleville, N. J. Bart has a process—called Electro Clad—for putting a nickel coating on ordinary seamless steel tubing.

For chemical and paper companies that handle acids and alkalies, that means a source of low-priced, corrosion-resistant pipe. Bart figures that its plated product costs less than half as much as the solid stuff and takes only 1/45 as much nickel.

• **Heart of the Matter**—The pipe itself is the heart of Bart's plating method. It is threaded with a nickel anode, flooded with a plating solution, and rotated, all in one operation. The continuous flow of the solution prevents the formation of gases that would get into the pores of the pipe. And the rotation drains the solution from the deep crevices of the metal, making a more even plating.

For light to severe corrosion jobs, the thicknesses of the plating range between 0.007 in. and 0.030 in. That's for standard 20-ft. lengths of diameters from 1¼ in. to 20 in. For diameters less than 1¼ in., Bart reduces the plated pipe to the required dimensions by compressing it with high water pressures.

• **Strong Bond**—Once the pipe is plated, it will stand just about any kind of fabrication. The bond between the nickel and steel is strong enough not to rupture when the pipe is heated, bent, or cold reduced. If the pipe is reduced, the thickness of the plating will also go down proportionally without any uneven spots.

Bart first worked out its plating idea for the Atomic Energy Commission, which was in the market for 150 mi. of cheap but corrosive-resistant pipe for its Oak Ridge plant. Since then it has also turned out silver- and copper-plated pipe. And now it is experimenting with platings of chrome and lead.

Transit Progress Paces Civic Progress

September 24 deserves a red circle on everyone's calendar . . . for it is National Transit Day, and commemorates the 100th anniversary of the birth of America's Transit system.

Millard Fillmore was president when the first horse-car was put into service in New York City. Twenty-two years later the cable car began climbing the hills of San Francisco. In 1886 the first electric trolley awed the citizens of Montgomery, Alabama, and New Yorkers got their first subway ride in 1897. These were the humble beginnings of the system that today carries over 20 billion of the nation's men, women, and children annually.

On modern street cars, trackless trolleys and subways, Westinghouse brakes play a vital part, for how fast the conveyances can safely *go* is dictated by how fast they can *stop*. Each type of transport calls for something different in equipment, so that the name "Westinghouse Air Brake" means far more than a single product. It stands for a comprehensive range of power braking systems: pneumatic, electro-pneumatic, all-electric, and combinations with dynamic. Each is designed to do a better job in some specific application . . . each is the product of the Westinghouse research program that is now in its 82nd year, and that has the one aim of continuously increasing the comfort and safety of America's traveling public.

Westinghouse Air Brake Co.

AIR BRAKE DIVISION

WILMERDING, PA.

1 A steel framework, for the concrete-and-glass section, is welded together for Otto Buehner Co.'s sectionalized wall.

2 Adding a layer of glass-foam bricks is the next step—after the steel framework has been set in a slab of concrete.

4 Frameworks are welded together to make a ground circuit for the building.

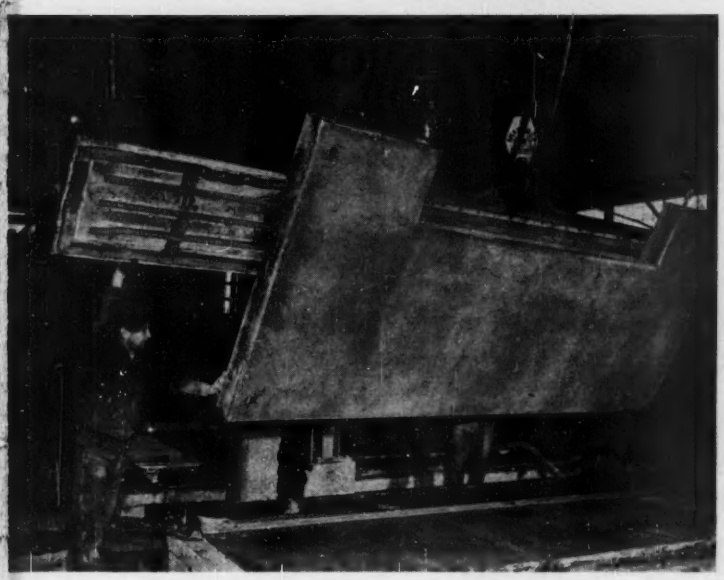
5 A vacuum device takes about 12 gals. of water out of each wet slab—before the concrete begins to set. It saves drying time, adds muscle to the concrete.

AEC Turns to Walls of Concrete, Foam Glass

The Atomic Energy Commission had a tough construction problem at its Arco, Idaho, reactor. But necessity—and a Salt Lake City concern—came up with the solution: walls made from concrete and foam-glass that could be replaced section by section.

AEC needed walls that were hard-surfaced, heavily insulated, and chemical resistant for one of its testing build-

3 A second framework is lowered into place next. This completes the reinforcement. Then another slab of concrete is added, topping the section off.



6 A finished section is steam cured overnight and is ready to be shipped the next morning. Special suction lifters take it to a truck.

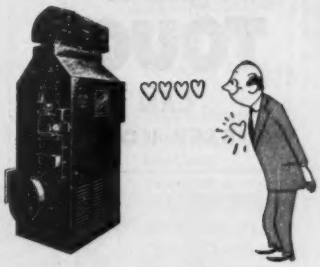
ings. But, most of all, AEC wanted a wall that it could replace by sections, in case one section got contaminated with radioactivity.

• **Sandwich**—Otto Buchner Co., of Salt Lake City, engineered a four-sandwich that fills the bill. Concrete slabs form the outsides of a section and hold on insulating filling of foam-glass blocks between them.

To make the sections, Buchner installed a special assembly line (pictures, above) in its sprawling plant. Trucks hauled them to Arco 260 miles away, where they were bolted directly to the steel framework of the building.

Each section starts with a steel reinforcing framework that is vibrated into a bed of new concrete. Then the layer of foam glass is laid, and a second steel

TREASURERS LOVE DRAVO HEATERS!



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Dravo *Counterflo* Direct-Fired Space Heaters for industrial and commercial installations save money for a lot of reasons:

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2. **easy installation**—needs only fuel, electric and exhaust connections . . . no ducts.
3. **low operating cost**—burns gas or oil . . . easily converted . . . minimum efficiency 80%.
4. **long life—low maintenance**—rugged construction . . . stainless steel combustion chamber eliminates refractory lining . . . offers years of service.
5. **heat where you need it**—right in the working zone . . . roof heat loss reduced.
6. **automatic controls**—heater looks after itself . . . requires only occasional attention.

Important savings in these days of rising costs! No wonder Dravo Heaters have made such a hit with company treasurers!

HERE'S WHAT ONE TREASURER REPORTS...

"At our large automotive manufacturing plant, *we saved $530,000* by installing Dravo Heaters instead of a conventional wet-type system! And yet we obtained the finest results because of this more efficient method of heating!"

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framework is added. The two steel frameworks are welded together, forming a complete circuit that can be grounded to the building. Finally, another slab of concrete tops off the section.

Before the concrete starts to set, Buehner uses a vacuum device that takes about 12 gal. of water out of a section. This saves drying time and adds strength to the concrete. After the preliminary set, the section is covered with a hood in which it is steam cured in an atmosphere of 100% moisture overnight. The next morning, a section is ready for shipment.

On the basis of its success at Arco, Buehner plans to use a similar process in other commercial construction.

• **Experience**—Although the concrete sandwich is a new project for Buehner, the company has been working with concrete for a long time. Since 1900 it has specialized in a cast architectural stone, called Mo-Sai, that's a substitute for native stone in commercial and institutional buildings.

PRODUCTION BRIEFS

A photo-sensitive glass, developed by Corning Glass Works, can be cut into intricate shapes by chemicals. It is exposed to ultraviolet light through an ordinary photographic negative, then heated to 1,200F. A soaking in a solution of hydrofluoric acid eats away the areas that have been exposed.

•

Military maneuvers will be transmitted from the field to classrooms over a mobile television station made by RCA for the Army Signal Corps. The video programs are piped directly over coaxial cable or rebroadcast from the mobile unit by another station.

•

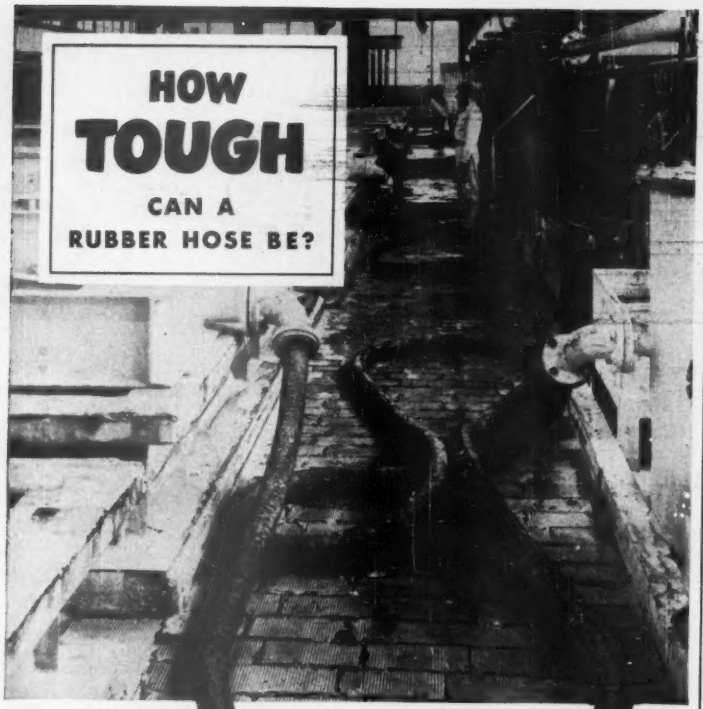
The heat-treating line of Lone Star Steel Co.'s new pipe plant has been engineered for automatic control and a processing speed that's higher than usual. To relieve hardness and stresses around the welded seams, the pipe will be treated by a high-intensity gas heat.

•

A radio cabinet of modular design is the basis for eight different styles at General Electric. Its versatility allows a change in styling by a rearrangement of the dial knobs, speaker panel, and other accessories. By using only one mold, it can cut down retooling costs.

•

Pratt & Whitney's J-42 engine is now rated at a service life of 1,000 hours between major overhauls, according to the Navy Bureau of Aeronautics. This makes the maintenance record of the Turbo-Wasp engine comparable to most piston engines.



Quaker Acid Suction Hose at American Cyanamid Co.'s Calco Chemical Division plant, Gloucester, N.J.

QUAKER
ACID HOSE

Resisting the corrosive bite of sulphuric acid twenty-four hours a day, month after month, this Quaker Acid Suction Hose takes terrific punishment in American Cyanamid Company's Gloucester, N. J., Calco plant.

Under constant wear from rough handling, it has survived a remarkably long life in the process of making titanium dioxide used in the manufacture of paint, paper, printing ink and plastics.

Resistance to wear shown by this "acid test" of Quaker Hose is typical of the quality of all Quaker Industrial Rubber Products.

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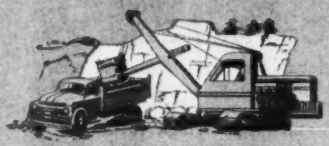
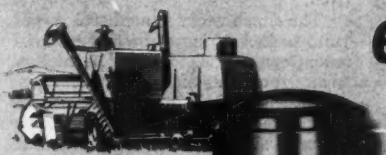


...of all this equipment!



Chrysler Industrial 15—one of eight basic models.

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- Winches
- Tractors
- Combines
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- Spreaders
- Irrigation Equipment
- Orchard Sprayers
- Hay Choppers
- Pumps
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- Sprinklers
- Locomotives
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- Drilling Equipment
- Air Conditioning Equipment
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- Street Flushers
- Snow Plows
- Oil Well Pumps and Drillers

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NEW PRODUCTS

Foolproof Photography

Life is getting simpler all the time for the amateur photographer. Now General Electric Co. has an exposure meter that tells you directly what lens opening to use.

The Mascot meter is about the size of a box of safety matches, weighs 2¼ oz. You set a knob at the front of the meter to the proper film-speed index number—5, 10, 16, or 50 A.S.A. That determines which of four scales appears on the face of the meter. When you point the meter toward the subject, the exact lens opening, or F-number, shows on the scale below the pointer. You don't have to refer to a code to convert the reading.

Mascot's sensitivity ranges from nine candles a sq. ft. to the brightest sunlight and is within the accuracy level of the American Standards Assn., according to GE. The company designed it for home-movie makers as well as for snapshot amateurs.

• *Source: General Electric Co., Schenectady, N. Y.*
• *Price: $16.95.*

Equipment-Inspection Kit

Small firms that are subcontracting defense work are on the lookout for reasonably priced inspection equipment to help them meet government specifications. That's why Geo. Scherr Co., Inc., assembles an assortment of measuring tools and instruments called the Scherr Limited Budget Laboratory.

The kit includes American and European instruments to perform ordinary operations to measure and inspect thickness, length, diameters, and forms of tools. There is also equipment for checking templets and dies, pitch, lead and form of screw threads, surface finish (visually), and circular divisions and graduations. You can either buy a complete unit or choose tools according to individual need.

• *Source: Geo. Scherr Co., 200 Lafayette St., New York City.*
• *Price: About $2,000 for a complete unit.*

Air-Operated Clutch

A clutch for heavy industrial machinery that's air-operated can be had from National Supply Co. It's for operations that require high twisting effort, or torque, at speeds under 600 rpm.

The clutch works somewhat like your auto brake. A ring of friction material encircles the brake drum. The friction material consists of a chain of individual blocks with a rubber tube or diaphragm around them. The diaphragm is sealed along the edge of the housing. When you apply air between the diaphragm and the housing, it inflates the tube, squeezing the friction blocks against the drum.

That's what joins the driven unit to the driving one, such as a motor or engine.

The friction blocks are individually replaceable and are easy to maintain. National Supply says the clutch is particularly good for road-construction machinery, paper-mill equipment, and mine hoists.

• *Source: National Supply Co., Pittsburgh 30, Pa.*
• *Price: $1,200-$2,000.*

Recorders Last Longer

You save wear and tear on a recording instrument if you record with magnetic rubber tape instead of metallic tape or wire, Brush Development Co. claims. That's because Brush impregnates its recording rubber with a permanent lubricant that protects the recording head. The specially treated rubber is particularly useful for repetitive announcements such as a telephone company's recorded weather report, or repeated instructions to new plant employees, or classroom work.

Brush makes the rubber from a special Neoprene base. It pigments the Neoprene uniformly with magnetic oxide. This metallic compound in the rubber receives the magnetic impression.

The rubber tape comes in a 3-in. diameter roll, 1⅜ in. wide, priced at $5.90, and a 7⅛-in. diameter roll, 1⅜ in. wide for $7.

• *Source: Brush Development Co., 3405 Perkins Ave., Cleveland, Ohio.*

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FIRST YOU HAVE A RIVER—but you're going to put it to work. It will be a water highway to carry raw materials and finished products to and from thousands of plants within reach of its port cities. In this vast industrial empire Gas will be applied to an endless number of heat-processing operations. But, Gas will also perform countless other tasks to help you put your river to work because—

YOU NEED TOWBOATS—the work-horses of river transportation. As a production-tool in ship building Gas takes over countless jobs—in casting propellers, annealing miles of wire for electric systems, heating billets for diesel-engine shafts, case-hardening gears of speed-reducers. And Gas has other applications—many of them in barge building because you need—

BARGES TO CARRY YOUR GOODS—the giant cargo bottoms which transport so many millions of tons of raw materials and finished products. Glass liners for liquid carriers are the products of Gas—and Gas ovens relieve the stresses in pressure vessels for other chemicals. Structural shapes and plates are cut by Gas, and fabricated after heating by Gas. This essential fuel is vital, also, to—

YOUR COMMUNICATIONS AND NAVIGATION—because modern river transportation depends on scientific advances in ship-to-shore telephone and radar. In research, in metallurgical processes, for manufacturing operations, Gas is the most efficient and flexible heating medium, applicable as well—

FOR YOUR PRODUCTION-PROCESSING—in any field. The uses of Gas in turning rivers into water highways only emphasize the diversified tasks in which Gas serves industry. There's always a way to do production-line heating with Gas—economy alone is a good reason why you should consult your Gas Company Representative.

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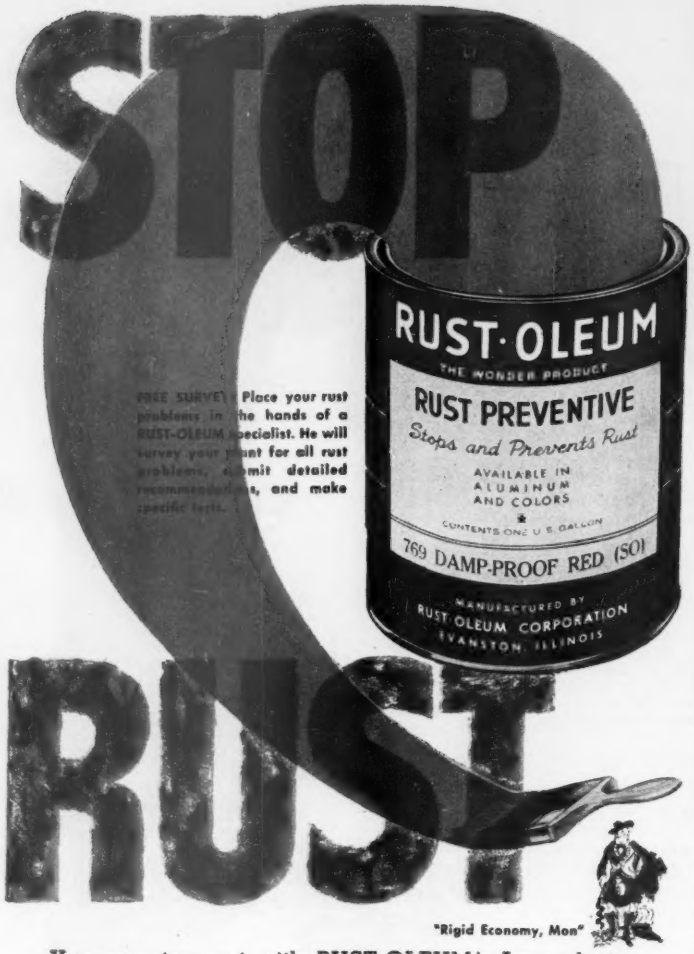

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You don't need a die set to insure the accuracy of the latest punch press put out by Wales-Strippit Corp. The 30-ton machine has accuracy designed into it.

Standard die sets are usually required between the top and bottom plates of a press to achieve perfect alignment in the punching operation. Wales-Strippit gets the same effect by setting up close tolerances between the vertical columns that support the press head and the sleeves in which the columns ride.

A shearing attachment is optional equipment. The press comes in four workbed sizes: The smallest is a 16-in. x 24-in. bed size that's priced at $2,000, and the largest, a 16-in. x 60-in. model, sells for $4,000.

• *Source: Wales-Strippit Corp., North Tonawanda, N. Y.*

Triple-Clamp Vise

Trying to put a round or tapered object in a vise is like trying to put a square peg in a round hole. You usually damage or "rough up" the surface of the work when you are tightening the vise.

The "Sevo" vise, made in Sweden and distributed by De Wilde-Jones of San Francisco, is designed especially to handle irregular-shaped objects. Instead of two, flat, parallel jaws, this vise has three jaws that clamp the part in three places.

Each jaw is really a pile of machined plates, flat at one end, round at the other. The plates swivel independently of each other. This means you can arrange each jaw to hold the particular part you are working with. The lower plates on the jaw can be turned so the part can rest on a flat surface. In this way, you keep your work from moving both sideways and downwards.

• *Source: De Wilde-Jones, Inc., 181 Steuart St., San Francisco, Calif.*

• *Price: $70 and $150.*

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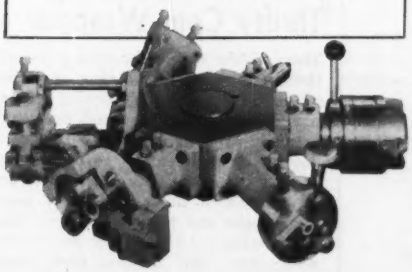

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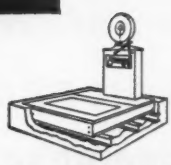

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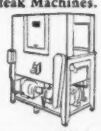

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•

Another adjustable golf club that saves you the bother of lugging a full bag is on the market. This one, called Miracle, is well-balanced, easy to change, and compact, says maker International Golf Products, 4447 West Madison St., Chicago. A dial on the clubhead sets it.

•

What happened in an accident is easier to picture if you use a device called a Visualizer board. It consists of interchangeable sections of fiberboard covered with plastic-coated paper. The paper is drawn to simulate traffic intersections. It comes with plastic autos. Sales Aid Co., P. O. Box 1142, Trenton, N. J., designed it for trial lawyers, insurance adjusters, and policemen.

•

Tenite plastic screw anchors from Mastercraft Products, 95-01 150th St., Jamaica, N. Y., are lightweight, corrosionproof, and good electric conductors. Called Scru-Tite, the anchors have low thermal conductivity.

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There's little chance for money to slip through the fingers of a clerk or cashier who uses a Rap-a-Coin. Wrapping pennies, nickels, or dimes to make bank deposits is a speedy job with the device because it does the counting for you. You set the tube for one of the three coins, put in just enough coins to fill the tube space, insert the wrapper, and push the plunger. Rap-a-Coin retails for $7.50, is put out by Henderize, Inc., 5667 Freeport Blvd., Sacramento, Calif.

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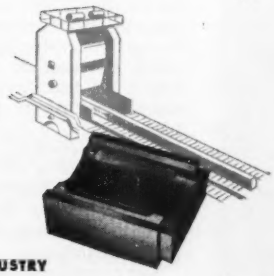

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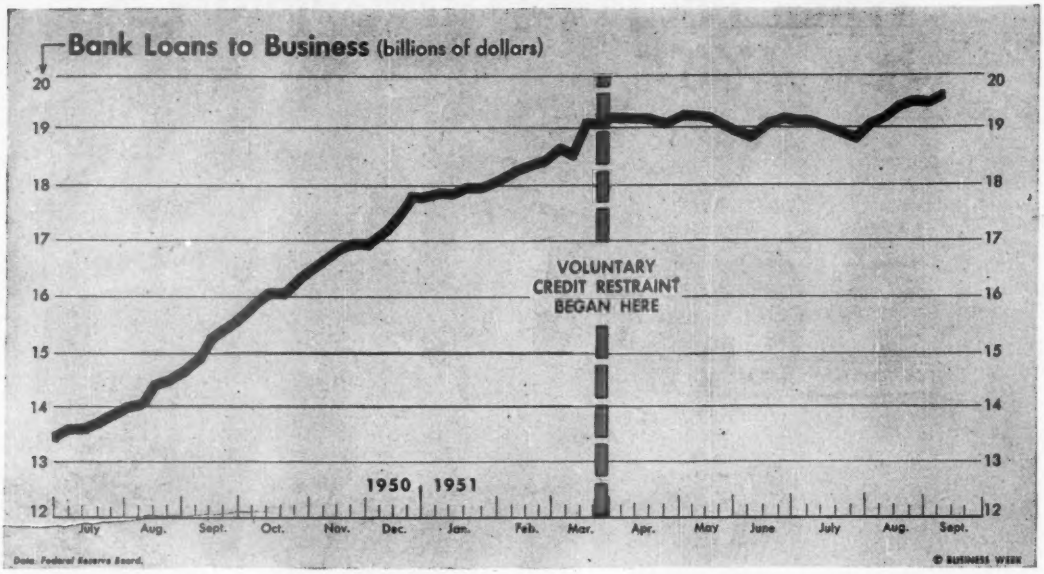


New Loan Rise Tests Credit Restraint

A key man in the fight on inflation returned to Washington last week after inspecting some of his troops. He is Oliver Powell, chairman of the national Committee for Voluntary Credit Restraint—usually known as VCR.

Powell, who is also a Federal Reserve Board governor, has been looking over the way VCR works. VCR was set up last spring to help banks and other lenders clamp down on credit inflation (BW—Mar.24'51,p19).

The national committee was formed by banks, insurance companies, and investment banking firms, working with the Federal Reserve. Its first product was a set of standards to guide lenders in screening out inflationary loans to businesses and local governments. Regional committees were formed to give lenders a disinterested opinion on borderline cases.

• **Tough Test Ahead**—During his tour, Powell talked with several of the regional committees. And he's happy about the job VCR has done up to now. But he would be quick to admit that other factors besides VCR have been leveling out the zoom in business loans. He knows that VCR's toughest test still lies ahead.

The chart of bank loans to business tells the story. Loans did level out after mid-March. But they are going ominously upward again.

• **Other Factors Working**—It just happened that VCR went into effect last March just as Federal Reserve was pulling the fixed pegs from under government bonds. Money rates were thus being tightened anyway. And, not long afterward, consumer buying began to taper off; there was a slight but noticeable recession in many industries; and inventories in those fields began to look top-heavy.

Then, too, nondefense loans—the ones VCR is supposed to reduce—would normally flatten out from mid-May to the end of July. VCR has never claimed the major role in this.

So these factors make the August-September upswing in business loans (both defense and nondefense are shown in the chart) look more and more like VCR's first major test.

• **Loans Increasing Now**—The national committee of VCR has been keeping tabs on the loan portfolios of a large sampling of big national banks. It is breaking these loans down by purpose and by type of business. Latest figures show that nondefense loans are building up at a faster pace.

In the New York area, first to be heard from for the week ended Sept. 12, business loans of all types increased faster than in any week since last February. And it is estimated that about two-thirds of these are for nondefense purposes.

• **You Can't Tell**—How effective, then, is VCR? There's really no quantitative way of measuring its effect on bank loans. Suppose you took the figures on the number and dollar volume of loans submitted by lenders to regional committees, and found how many were turned down. That wouldn't even begin to tell the story.

For one thing, the committees usually don't attempt to check on whether the referring bank or other lender carries out their recommendations, although presumably this is usually followed. For another, the lenders don't submit to their regional committees many loans that are quite clearly inflationary.

Powell's assistant, economist Roy Reierson, who is also a vice-president of the Bankers Trust Co. of New York, puts it this way: "There's an element of birth control in the processing of questionable loans."

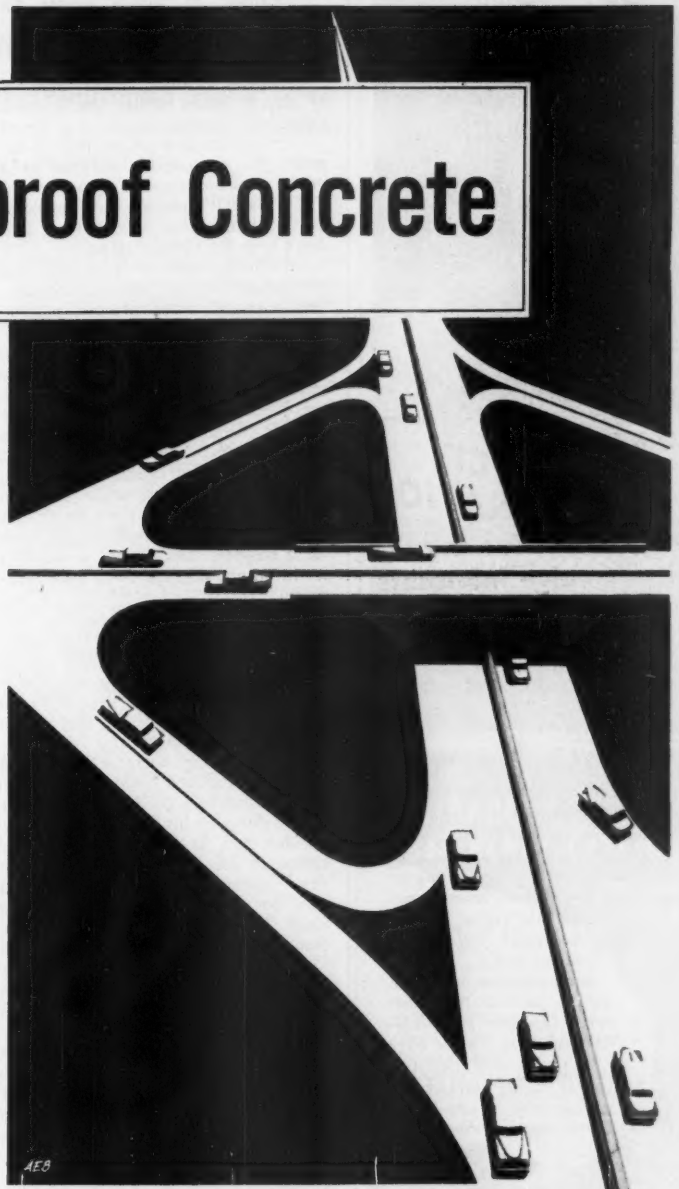
Some regional committees have thought of getting banks to supply some statistics on rejected applications, but have been reluctant to add more paper work to the government reports already required of banks.

• **Criteria**—The VCR considers that a loan is not inflationary if its purpose is:

- Defense work.
- Staple products.
- Additional working capital that is needed because of higher costs.
- To finance normal business of securities dealers.

It does consider these loans inflationary:

Climate-proof Concrete



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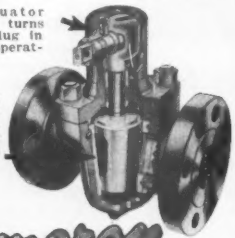

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• Loans to provide money for speculative investments.

• Loans to buy inventories in excess of normal needs.

In capital spending, usually financed by security issues rather than by bank loans, VCR frowns on:

• Construction of facilities to improve the competitive position of a producer of nonessential goods.

• Capital spending by companies in distribution and service lines that don't help the defense effort.

• Bond issues by states and local governments to pay veterans' bonuses, buy privately owned utilities, or construct nonessential facilities.

• **Not Easy to Judge**—In many cases, these standards are a matter of judgment. What is a questionable loan to one lender may seem a proper one to another. Often the real purpose of a loan may not be what it appears to be. A loan for working capital, for instance, may be needed because money has been spent on new plant. It's not always easy to decide just how much working capital a business should have, or whether its inventory position is in good condition.

• **Competitive Angle**—Then, too, it's never easy for a lender to turn down profitable business. Yet VCR people say they have had very few complaints from chagrined bankers who turned a loan down, only to discover that a competitor took the business.

For, of course, there is nothing to prevent a would-be borrower from trying a second or a third bank if he gets turned down on his first attempt. Bankers, however, know who their regular customers are—and who their competitors' customers are. So it isn't too hard to spot anyone making such a move. When a banker becomes suspicious on this score, he will confer with his competitors. If he finds they have turned down a loan because of VCR policy, he is usually inclined to do likewise.

• **States and Cities**—A special problem is municipal financing, which is also subject to VCR. Of course, the bulk of state and local government bond issues has been to pay for schools, hospitals, and roads. These are not blocked by VCR. But where a local government has drawn up a "package program"—many projects to be financed by one issue—the regional VCR committees have been able to get scale-downs. The local government most times agrees to postpone some of the work (and part of the loan) until the emergency is over.

The volume of municipal issues has also been cut down by persuading local governments to alter their borrowing practices. When a city starts a project, it often sells bonds for the full amount of the cost. It won't need all the money at once, since payments to contractors are made only as work progresses. Normal practice has been to reinvest surplus funds realized in the original borrowing. That way, the municipality recoups some of the interest charges during the building period. Now investment houses and banks are getting cities to issue bonds only as funds are needed for the particular project.

• **A Hand in Real Estate**—VCR has also helped in controlling real estate credit. The national committee has put out a bulletin on real estate terms not covered by Regulation X. Regulation X covers financing of new real estate only. The committee wants new mortgages on existing residential property to be held within Regulation X limits. It wants loans on other types of real estate to be screened as to purpose. And it wants to keep loans on commercial property to not more than two-thirds of "fair value."

In order to get cooperation on mortgage credit, representatives of mutual savings banks and savings and loan associations have been brought into the VCR committees. Other financial groups that keep in touch: brokers and securities dealers, finance companies, and credit unions.

• **Grassroots View**—What do bankers around the country think about VCR? Though most of them feel it's a success, very few would go so far as to say it is 100% perfect. You hear comments like, "It has worked surprisingly well," or "It has cut out many less desirable loans."

Some bankers say there probably are some small-town banks that have never submitted loan questions to the committee. But they agree that most larger banks do whenever there's any doubt.

• **The Test Ahead**—Perhaps the reason bankers are a bit cautious about rating VCR is their knowledge that the program has yet to face the test of a real inflationary period. The recent rise in nondefense loans indicates that this test is beginning.

Is this advance in nondefense loans more than seasonal—in other words, has inflation of bank credit started again? People at the Federal Reserve, who are in the best position to know, get evasive when you press them on this point. There's a feeling that their seasonal adjustment factors—and everyone else's—aren't very good.

VCR has been fairly easy to carry out as long as the heat was off. But what happens when U. S. businessmen begin feeling that their inventories are too small and start going again to their bankers for loans to increase inventory? What will the bankers say when their good customers want to buy materials on a big scale, to stock up against future shortages?

Power Fight Dumped on SEC

Question of whether the Washington Water Power may be sold to public utility districts is before the commission, thus making it arbiter in public vs. private fight.

The Securities & Exchange Commission is back in the middle of a bitter battle between private and public power interests.

This week SEC heard oral arguments in the latest round of the struggle to decide the future of Washington Water Power Co. Any decision—or even a failure to act—will put the commission in the thankless role of arbiter in the private power vs. public power squabble.

• **Wants to Sell**—Washington Water Power's parent company, American Power & Light Co., wants to sell its 100% holding of WWP's common stock to public utility districts in the state of Washington. Under the terms of a nine-year-old SEC order, it has to sell the company or else distribute the WWP shares to its own stockholders.

AP&L expects to get a good price from the PUD's—somewhere between $56-million and $61-million. The PUD's can afford to pay a better price than any private group could offer, since they have the privilege of financing the deal with low-interest, tax-exempt municipal bonds.

• **Former Parent Protests**—But the rest of the private power industry is up in arms at AP&L's plan. Leader of the opposition is Electric Bond & Share Co., which used to be the parent company of AP&L (it still owns about 8% of AP&L's common stock—the largest single holding). EB&S has some strong allies outside the industry—the states of Washington and Idaho, and the city of Spokane, Wash. They support the private power people because they don't want to see the Washington Water Power system chopped up.

• **New Offer Coming**—Earlier this year, opponents of the sale of WWP's common stock to PUD's thought they had the deal blocked by court action (BW—Apr.28'51,p128). But a new sale plan is brewing.

American's president, Howard L. Aller, told an SEC hearing Aug. 24 that he expects a new offer for WWP's stock to be made to the holding company by Guy C. Myers, PUD fiscal agent, by the end of the year. The new offer may even come as soon as Oct. 1, Aller said.

The holding company is asking SEC to grant time until Jan. 1 to receive the new PUD offer. If no offer is received, Aller says that AP&L probably will distribute the common stock to its own 20,000-odd stockholders. On the other hand, if SEC orders distribution of the stock before next year, American will challenge the move in court.

• **Rival Tactics**—Opponents of the sale to the PUD's are demanding an immediate stock distribution to preserve WWP as a private power company. American is fighting back with a petition to SEC that Electric Bond & Share do some stock distributing of its own and dispose of its American holdings immediately. SEC had originally ordered that this stock be disposed of by last February, then granted an extension until late in the year. Now it has started hearings on AP&L's petition.

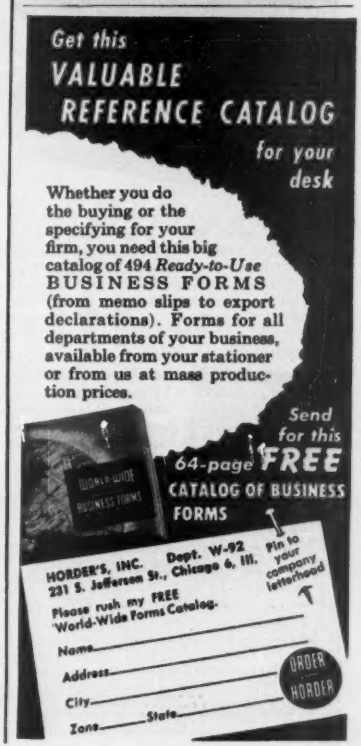
The reason Electric Bond & Share is fighting the sale to PUD's, the AP&L petition charges, is that WWP is a client of Ebasco Services, a consulting firm that is a Bond & Share subsidiary. Under PUD ownership, Ebasco probably would not be retained, American says.

• **Idaho Draws Cards**—Chief obstacle to any sale to the PUD's continues to be the fact that about 25% of the WWP properties are in Idaho. An Idaho law forbids public bodies of another state to own public utility properties in Idaho. This was the basis for the injunction issued in March against the earlier PUD sale proposal.

Aller testified at the hearing last month that the PUD's propose to overcome this difficulty by disposing of the Idaho properties immediately upon acquisition of the company. But he was hazy about details. Best bet is that rural electric co-ops in northern Idaho will be the buyers when the new offer is brought in by the PUD's.

• **Deadlock in SEC**—Last February SEC decided by the narrowest possible margin—a two-two tie vote—not to take jurisdiction in the first sale proposal, because WWP was to be sold to public bodies. Siding with Chairman Harry A. McDonald in voting not to assume jurisdiction was Edward T. McCormick, who has since become president of the New York Curb Exchange. It is not known how his successor, Robert A. Millonzi, would vote on another sale proposal. Neither is it certain that the fifth commissioner, Donald C. Cook, will continue his nonparticipation in the case.

If it doesn't order WWP stock distributed to AP&L's stockholders in the meantime, the commission will again face the question of jurisdiction when the new PUD offer is brought in.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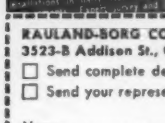

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"Thin Ice" for S & L's

Banking department raps some New York savings and loan associations for letting their surplus ratios get too low. They're depending on borrowed money to supply liquidity.

Some of New York State's savings and loan associations got a sharp warning from the state banking department last week.

Edward H. Leete, deputy superintendent of banks, told the state Savings & Loan League convention that his department was "very much disturbed" by the increase in the number of state-chartered associations with surplus ratios below 5%. The department has just finished a special study of the surplus position, liquidity, and borrowings of the state-chartered associations as of Mar. 31 and June 30. "We are still more disturbed," he added, "by the complacence with which this situation is viewed by some of the managers."

• **Minimum Ratio**—The surplus ratio is the ratio of an association's surplus funds to its share liabilities. It provides a cushion for shareholders (who are roughly comparable to depositors in banks), should some of the association's mortgages go sour.

Its surplus ratio is similar to a bank's capital funds-to-deposits ratio. And, like commercial banks, the traditional ratio is around 10%. The state banking department feels that 5% isn't out of line, but that's as far as it wants to see the associations go.

Leete commented that all 14 of the state associations that are below 5% are insured with the Federal Savings & Loan Insurance Corp. (Insurance is optional for state-chartered associations.) But that, he cautioned, is no substitute for reserves. He said he thought the purpose of insurance was to protect depositors and shareholders in financial institutions that get into trouble through no fault of their own. "We do not believe it was meant to encourage management to skate on thin ice with the understanding that Uncle Sam would pick up the pieces if the ice broke."

• **"Liquidity" Rapped**—Leete also criticized the liquidity of some associations. The department considers that a savings and loan association should always have in cash and marketable investments a sum equal to at least 15% of its share liabilities and borrowed money. Out of 163 institutions, 73 had a ratio below 15%.

Leete told the assembled savings and loan men that, in spite of the fact that savings and loan associations are not legally obliged to pay back shareholders

Frontier Banking—100 Years Later

Banks are usually pretty sedate places, but there were rare goings-on in Buffalo, N. Y., when the Western Savings Bank celebrated its 100th birthday. In 1851 Buffalo was really out West, and the bank has withstood repeated attempts to modernize its name. There was a stagecoach parade down Main St., while at the bank leggy cowgirls distributed balloons to the children, cactus plants to adults.

on demand, they have in effect "placed themselves in the same position as commercial banks" as regards depositors. "And," said he, "I challenge you to name a commercial bank with cash and marketable securities equal to less than 15% of its deposits and borrowed money."

• **Thin Ice**—Finally, Leete remarked with disapproval on the banking department's finding that some of the associations were heavily in debt to state or federal agencies set up to encourage savings and loan activities. As of June 30, he said, 13 associations would have had to sell mortgages if they were called on to repay what they owed. In other words, their borrowed money exceeded their liquid assets. They were depending on borrowed money to supply liquidity—a risky procedure, noted Leete, if business conditions should change.

Equipment Leases Spread to Autos

When Equitable Life Assurance Society started leasing freight cars to the railroads last spring (BW—Apr.8'51, p92), it opened up a whole new world for life insurance companies, eager to find higher yields within their restricted field.

• **Rental Autos**—The New York State insurance department has now O.K.'d the extension of the leasing principle to passenger automobiles, which like freight cars are readily marketable in case the original lessee welshes on the deal. Mutual Life Insurance Co. of New York is renting out about 2,000 cars, representing an investment of about $2.6-million, to blue-ribbon companies that are able to rent at least 100. The deal is being handled through Peterson, Howell & Heather, fleet management firm of Baltimore, Md.

The cars—mostly Fords, Chevrolets, and Plymouths—are being rented to E. I. du Pont de Nemours & Co., Inc., Sunshine Biscuits, Inc., Johnson & Johnson, and Minneapolis-Honeywell Regulator Co.

• **Release Capital**—The deal makes sense for some companies. It releases capital tied up in fixed assets. The rentals can be deducted as operating expenses for tax purposes, whereas if the cars were owned outright only depreciation and interest on financing could be deducted.

The rental is on a net-lease basis (the operating company pays all incidental expenses). Lease is for one year with renewal option. Mutual expects that nearly all companies will rent new cars each year. Last year's cars, Mutual figures, will find a ready sale on the used-car market.

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University's Oil Deal Is 4th Business Venture

Vanderbilt University, of Nashville, Tenn., is going into business in a big way. Within the last three months it has bought four going concerns as investments through lease-back deals. The university is looking for higher yields than it can get from bonds.

Latest buy is a $1¼-million oil terminal on the Mississippi River at St. Paul, Minn. Vanderbilt bought it from Wood River Oil & Refining Co., leased it to the Texas Co.

Previously Vanderbilt had bought: (1) a Textron mill at Charlotte, N. C., for $2.7-million (BW–Jul.7'51,p130); (2) a sporting-goods equipment plant at Tullahoma, Tenn., for $300,000 (BW–Jul.28'51,p28); and (3) a New Orleans warehouse for $100,000.

FINANCE BRIEFS

The Treasury's offer of 1⅞% 11-month certificates for a called issue of $755-million 3% bonds didn't go over well. Holders of 23% of the issue preferred cash. Usually the percentage of "attrition" is 5% to 10%.

•

The booming stock market (page 19) has encouraged an unusual amount of common and preferred stock issues. Among recent offerings: $24.5-million second preferred by Merck & Co.; $12-million convertible preferred by National Container Corp. (plus $20-million in 15-year debentures); $1.6-million preferred by Michigan Associated Telephone Co.

•

Mail-order profits drop: Sears, Roebuck sales for 24 weeks ending July 16 were about $1.1-billion, up 10.3% from last year. But net income was down 15%, to $46-million. Montgomery Ward sales for the six months ending July 31 dropped .7% to $501-million. Profits for the same period were $22.9-million, 10% below the same 1950 period.

•

Chubb & Son's deductible policy to handle big fire losses and avoid paying premiums for insurance on small losses (BW–Jun.24'50,p89) is doing well. Chubb's says it has written or shared in writing $1.4-million of annual premiums. About 80% of this was from firms formerly self-insured.

•

Commonwealth Edison Co. will ask stockholders to O.K. an increase of common stock from 16-million to 24-million shares and an issue of 5-million preferred shares. The company wants $50-million for expansion.

Tablets containing chlorinated compounds purify drinking water for combat troops.

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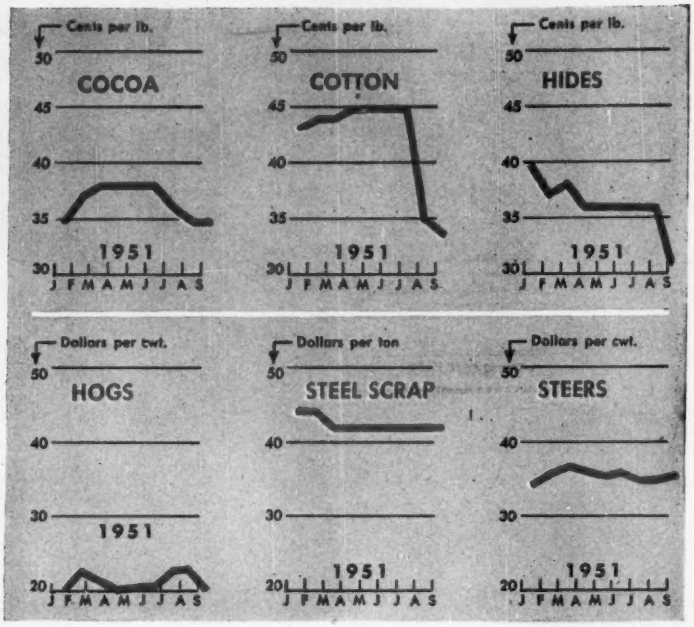
September 5, 1951

The Board of Directors has declared a quarterly dividend of 37½¢ per share on the outstanding Common Stock of the Company, payable on September 29, 1951, to stockholders of record at the close of business on September 14, 1951. Checks will be mailed.

CHARLES C. MOSKOWITZ
Vice Pres. & Treasurer

THE MARKETS



Commodities Slide—But the

Commodity markets are rarely a one-way street. Most people, when they talk about prices being strong or weak, are talking about an average of a number of raw materials. And thus the process of averaging obscures the movements of individual prices.

This year, for example, has been one of very general price declines. Yet there are commodities that have held like rocks—some, in fact, most certainly would have gone up had it not been for ceiling prices. Typical are almost all the metals.

And, reflecting slow business in many consumer lines, the prices of many items that are processed into food, clothing, and other soft goods have gone down. These are the prices most people talk about. So they give 1951 the name for all-over declining prices.

• **Metals Strong**—There is no reason to expect any declines in the major metals as long as there is no cutback in the defense program. In fact, many metals are selling for multiple prices.

Copper is one. Supply was desperately short even before the labor dispute that struck most domestic production. We weren't producing enough for our own needs, and markets outside the U. S. were above our ceilings, which curbed imports.

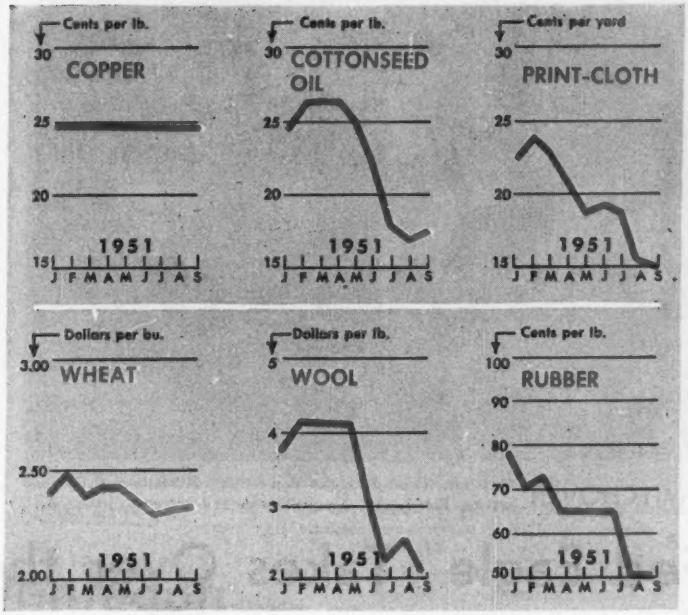
To get around this, the Office of Price Stabilization permitted foreign copper to sell at 27½¢ a lb. in this country, 3¢ above the domestic ceiling. But, even with that hike, buyers abroad often overbid the United States in the world market—which establishes still a third price for the red metal. And none of this takes into account copper that is sold and resold by "second hands" in the trade, which may or may not go at prices recognized by OPS.

• **Lead and Zinc**—Efforts to get the tariffs off lead and zinc are a piece of the same cloth. An American importer, if he were to pay going world prices plus the duties, would find himself priced way above the U. S. market.

These multiple price systems work cost hardships on users of the metal. Suppose a manufacturer's ceiling price is based on 24½¢ for copper. To keep running, he finds he has to buy a lot of 27½¢ copper. If he can't or won't absorb the added cost, he has to wrangle with OPS for a new ceiling, while he goes on operating at a pinched margin.

• **Reverse**—Outside the metalworking lines, however, the problem is very different. Raw materials have tumbled since ceilings were set. That's all right from one side of the operating problem. There's no rise in raw materials to squeeze profits.

But profits are hit from two other



Metals Hold Like Rocks

angles. Companies caught with high-priced raw materials in inventory have watched the value melt away. And probably they have not been able to maintain their own prices to reflect the cost of the inventory. Competition has pretty well seen to that.

• **Cotton**—Cotton fiber and cotton cloth tell that story. Cotton was short until midyear, when the 1951 harvest got under way. The price ran up to a towering 45¢ a lb.

But, even while the fiber was selling at these high levels, sales of cloth in the trade began to fall off. This was reflected in a sharp dive in print-cloth prices, as everybody cut to move the stuff.

Finally, prices of both cotton and cloth began to feel the impact of the near-record 17¼-million-bale cotton crop now being ginned. That accounts for the dive of more than 10¢ a lb. in raw cotton. And it helps explain why print-cloth has firmed only slightly, even though there's been a fair improvement in demand.

The dive in cottonseed oil is a by-product of the big cotton crop. Seed from the crop will add greatly to an already comfortable supply situation in the edible oils.

• **Hides and Cattle**—Weakness in hides directly reflects slowness in the shoe trade. But indirectly there is another factor. Cattle slaughter has been small, but the cattle population is large; this leads to the uneasy feeling that a lot of slaughter cattle will be coming to market one of these days with a hide volume to match.

But the expectation of a pickup in cattle marketings hasn't depressed the price of steers. These keep butting right along at ceilings in the big markets—and at or above ceilings outside.

On the other hand, hogs recently have shown the effects of the approaching season of big slaughter. Pork output in the October-January period will be only slightly under the all-time record set during the war. Actual civilian supply no doubt will be the largest ever.

What hogs bring now tends to affect future meat supply: Sagging prices set off against a moderately strong corn price will hardly encourage hog raisers to plan for as many pigs next year.

• **Grain Holds**—Government supports are holding grain prices fairly well. On the other hand, Uncle Sam has had quite a hand in dropping the price of some imported commodities. Rubber is an example. First, the U.S. reactivated its big synthetic capacity. Then the stockpilers refused to go along with skyrocketing world markets. Between the two, prices were snagged.

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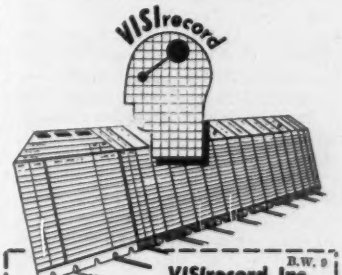

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NAMES AND FACES

THE GENERAL Marshall, retiring Defense boss.

SWITCHOVER President Truman thanks the retiring Secretary for his long service. Bob Lovett, Marshall's aide and successor, looks on.

"Scrawny, Ill-Fed Eagle" Takes Over the

Robert A. Lovett, the new Secretary of Defense, is a businessman who thrives on working for the government.

That is, up to now Lovett has found that his three tours of duty in Washington have had therapeutic value. His newest job—he was sworn in this week as the fourth Secretary of Defense—will test him as never before. He must ride herd on the biggest defense program in the nation's peacetime history, an annual expenditure of roughly $60-billion. It's a job that sorely tried the stamina of his predecessors, James Forrestal, Louis Johnson, and George Marshall.

• **The Work Cure**—In private life, as a member of Brown Bros., Harriman, investment brokers, Lovett from time to time has been plagued by stomach trouble.

Every time Lovett has come to Washington to take a job, his ailment has left him. There is no simple medical explanation; it seems that crisis assignments are good for Bob Lovett.

It was a crisis that separated him from private business in the first place. In the prewar rearmament days before Pearl Harbor, Secretary of War Henry Stimson lured Lovett to Washington as an Assistant Secretary of War.

The turn of U.S. foreign policy—when President Truman gave up trying to get along with Russia—brought Lovett back into government. He became Gen. Marshall's Undersecretary of State while Marshall was developing this country's containment-of-communism policy.

• **Korea**—Lovett came back again after Korea, when Truman felt compelled to fire Louis Johnson and name Marshall as Secretary of Defense. Marshall, weary from World War II and the toll that the cold war takes of any man nearing 70, declared that he would be Secretary of Defense only if Lovett was his second man.

Characteristically, Lovett accepted.

• **Dim View**—Lovett is no war monger. But he wasn't impressed with Russia's intentions of peace when he was Undersecretary of State, and he isn't impressed today.

Lovett is uncompromising with the Soviets, in his thoughts and actions. His emergence as secretary will tend to hurry up the rearmament program. His incisive mind enables him to make decisions more quickly than could Marshall, who was tired when Truman called him back from retirement, or Johnson, who found himself saddled with an economy policy and was unable to break out from it.

Lovett is experienced in the art of rearmament. Stimson gave him the job of producing the 50,000 airplanes that Roosevelt orated about before Pearl Harbor. To the amazement of everyone, including the plane makers, the goal was reached and surpassed.

This job is a monument to Lovett. And Congress respects him for it, as it has respected few men in the last decade. The goodwill he receives can't be rivaled; twice he has won confirmation unanimously.

• **Nonpolitical**—The appointment is not a political one. If Lovett has any politics, it is that of a Texas-born Democrat, turned conservative.

Lovett stood up to Truman in 1948 when the President proposed sending Chief Justice Vinson to Moscow to talk peace. This was in the middle of the campaign, but Lovett insisted that not only was the move appeasement, but it also was an insult to Marshall, who then was trying to reason with the Soviets in Paris.

His un-partisanship can be demonstrated best by his actions in the 1948 campaign. Though a member of the Truman Administration, Lovett conferred regularly with representatives of the Dewey campaign party. He wasn't undercutting Truman, he simply was keeping important citizens informed in case they came to power.

Lovett won't be called on along with other Democratic office holders to stump for the ticket in 1952.

Some of his popularity results from the fact that he hasn't been Mr. No. 1 until this week. Marshall had to suffer the criticism, as Secretary of State in 1947-1949, when policy on China was set, and as Secretary of Defense in the period that saw MacArthur fired.

Lovett sees his job as one to do, regardless of criticism. It has been his duty to convert Marshall's rearmament

NEW BOSS **Mrs. Lovett offers her present on new Secretary's 56th birthday. Congress' gift: unanimous confirmation in his tough new job.**

Pentagon

policies into action. This meant converting money requests into tanks, planes, and guns.

By temperament and training, Lovett is ideally suited for the job he has held, and for the job ahead.

He isn't bothered by his 12-hour, seven-day week. His principal asset is an ability to digest a complicated matter quickly.

• **"Card Catalog"**—As one business associate put it: "Lovett has a beautiful, analytical mind." Another called it a "card catalog." His schedule is just as precise. He leaves the Shoreham Hotel at 8 a.m. each day, arrives at the Pentagon at exactly 8:25. He sends his staff home at 6 p.m.

People who work for him are usually a bit intimidated by his keenness and appearance. He gets a laugh out of one description of him as a "scrawny, ill-fed eagle." That's crude, but it describes him. He is bald, except for a fringe around the sides and back; and he is ram-rod straight and thin.

Around the Pentagon, Lovett is considered a man of razor sharpness, tempered by a dry sense of humor and complete absence of self-importance. His speech is often vivid. Once, in an interview at the State Dept., reaching for a label for a hypothetical company, he called it "the flute and bustle works."

• **Born to the Purple**—Lovett is the son of Judge Robert Scott Lovett, president of the Union Pacific Railroad. He was born at Huntsville, 56 years to the day before the Senate's confirmation of his appointment.

During World War I, he left Yale for two years to serve as a Navy pilot; that's where he developed his enthusiasm for air power. It was at his suggestion that the Navy set up its first night bombing squadron.

After the war, Lovett finished Yale, then enrolled at Harvard law. He later switched to the Business School. He married the daughter of James Brown, senior partner in Brown Bros., Harriman, later went to work for his father-in-law's firm as a partner specializing in commercial banking.

Lovett's first stretch in Washington was a result of Stimson's campaign to get Wall Streeters to help with rearmament. Lovett and his close friend, James Forrestal, were two of Stimson's prime catches.

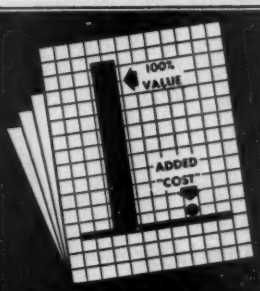
In the aircraft job, Lovett had the chance to put his strategic bombing theories into operation. Perhaps more than any other man, Lovett is responsible for the strategic air power that paralyzed German industry.

In his new job, Lovett is finding at least three knotty problems:

• How much to expand the defense program—especially the Air Force? The joint chiefs are at logger-heads over this.

• What to do about the unification row that is about to break out, this time with the Air Force against the Army and Navy over the issue of strategic vs. tactical air?

• What can be done to revitalize the role of the civilian Secretaries of the Army, Navy, and Air Force?



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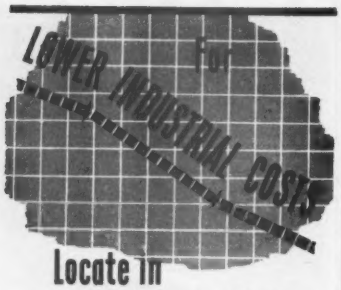

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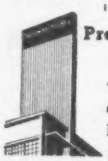

Preferred and Common Stock Dividends

The Board of Directors of Safeway Stores, Incorporated, on August 29, 1951, declared quarterly dividends on the Company's $5.00 par value Common Stock and 4% Preferred Stock.

The dividend on the Common Stock is at the rate of 60¢ per share, and is payable October 1, 1951 to stockholders of record at the close of business September 19, 1951.

The Dividend on the 4% Preferred Stock is at the rate of $1.00 per share and is payable October 1, 1951 to stockholders of record at the close of business September 19, 1951.

MILTON L. SELBY, *Secretary.*

August 29, 1951.

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DEFENSE BUSINESS

RFC Gets Defense Bankroll

Symington's agency takes on job of deciding who gets loans under Defense Production Act. Standards will be looser than they are for loans under its regular authority.

If you want a government loan to help finance war production—or just to keep your business afloat—the place to go now is one of the 35 local offices of the Reconstruction Finance Corp.

• **Broader Scope**—RFC, which has been getting rough treatment for its past sins, has been given new loan authority by executive order of the President. It already had the regular function of lending to businesses that otherwise aren't able to get a loan under reasonable terms and conditions. Now its new boss, W. Stuart Symington, has been given the primary responsibility of determining who gets loans under the less restrictive provisions of the Defense Production Act.

Under RFC's regular lending authority, all loans have to be backed by adequate collateral. But the Defense Production Act says that loans may be made to producers of war goods or essential goods and services where collateral may be inadequate, but where there is "reasonable expectation of repayment."

RFC has taken over only the loan end of the government's production and industrial expansion program; the agency has nothing to do with certificates of necessity, tax amortization, defense contracts, or materials allocation.

• **33⅓% Increase**—Symington claims that during the current fiscal year, he expects RFC's loan business to be one-third higher than it was last year. The basic reason: The records show that over the years the corporation's lending operations have hit peaks during times of business booms or business busts. Demands of defense production, and the generally tight money situation, RFC says, indicate a rising demand for RFC loans in the months ahead.

• **On the Line**—Symington put this prospect right on the line when he testified before an appropriations committee a couple of weeks ago. Despite the supposedly anti-RFC bent of Congress generally, he was given about everything he asked for.

• **Procedure**—When a borrower comes to the RFC local office, he fills out one set of papers and from then on RFC is the primary agency on the loan. If it turns out that RFC won't give him a straight loan, then RFC in Washington will check with the mobilization agency involved "to determine whether the purposes of the loan are essential to the defense program." If the agency gives its O.K., and RFC judges the loan sound from a credit standpoint, then RFC sets the terms and conditions and the loan goes through.

As of Aug. 28, the time RFC took over the defense lending job, a total of 60 defense loans had been granted, totaling $113,893,029. Largest single loan is the $46-million approved for Harvey Machine Co. for the construction of new primary aluminum capacity in Montana and Washington, but this has been blocked by the Interior Dept., on the grounds that power isn't available.

AEC and Military Get Super-Priority Rating

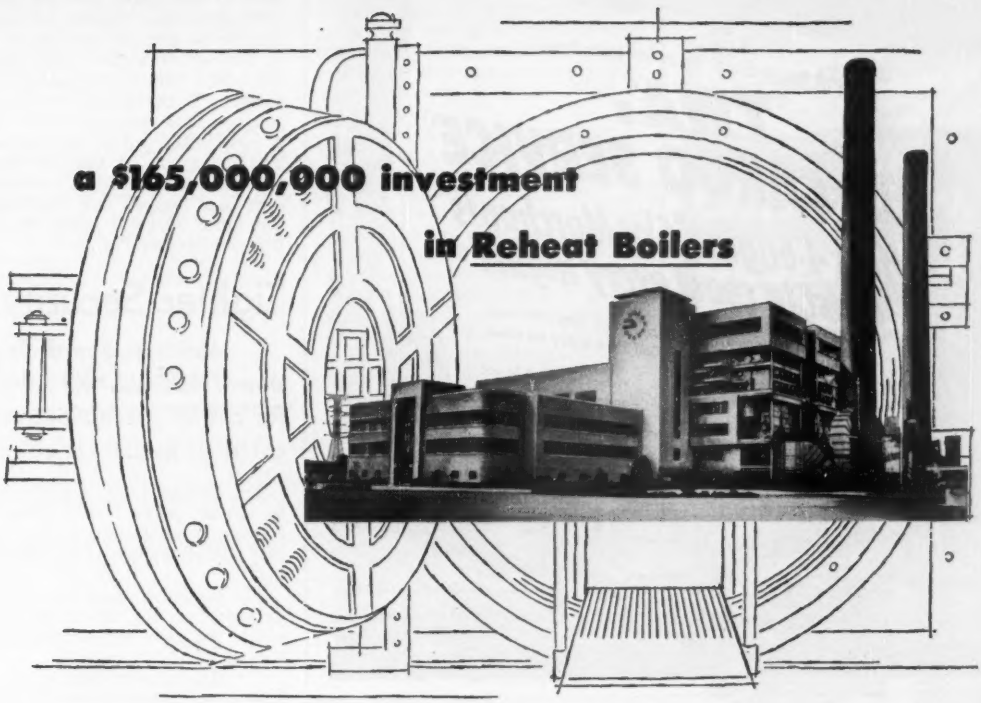
The materials controllers' well-guarded single-band priority system bulged a bit at the seams last week. The bulge was put there by the new "DX" rating issued by the National Production Authority.

NPA says the "DX" does no real violence to the hitherto sacrosanct "DO" system. True, a "DX" will take precedence over a DO-rated order, and it'll be a much more potent means of getting industrial components. It won't apply, however, to the three metals—steel, copper, and aluminum—managed through the Controlled Materials Plan.

But, the controllers argue, there will be comparatively few DX-ratings issued. They'll be passed out only to suppliers of the military and atomic programs, and then only at the specific request of the armed services or the Atomic Energy Commission. In this respect "DX" resembles World War II "AAA" rating, which was used to break bottlenecks in military production.

• **Speedup**—Originally, the "DX" was designed as the "super priority" that the controllers promised last month to the machine tool makers. It was expanded for use as a general bottleneck breaker, though, before it reached official form.

To step up urgent production for



Utilities that have purchased C-E Reheat Boilers in the past five years

	NUMBER OF BOILERS
Alabama Power Company	2
Boston Edison Co.	3
Carolina Power & Light Co.	2
Central Hudson Gas & Elec. Co.	2
Central Illinois Public Serv. Co.	2
Cincinnati Gas & Electric Co.	2
Cleveland Electric Illum. Co.	4
Connecticut Light & Power Co.	1
Consumers Power Co.	1
Dayton Power & Light Co.	4
Delaware Power & Light Co.	1
Duke Power Co.	6
Electric Energy Inc.	4
Florida Power & Light Co.	2
Illinois Power Co.	2
Kansas City Power & Light Co.	1
Long Island Lighting Co.	2
Metropolitan Edison Co.	3
Monongahela Power Co.	1
N. Y. State Electric & Gas Co.	2
Niagara Mohawk Power Corp.	5
Pacific Gas & Electric Co.	2
Philadelphia Electric Co.	1
Public Service Elec. & Gas Co.	3
Rochester Gas & Elec. Co.	2
Rockland Light & Power Co.	1
South Carolina Elec. & Gas Co.	2
Southern California Edison Co.	2
Tennessee Valley Authority	4
Union Electric Co.	2
Virginia Electric & Power Co.	2
Wisconsin Electric Power Co.	5

. . . to help keep the cost of electricity down

The forward looking electric utilities, listed here, are taking full advantage of the latest advance in power station practice — Reheat. In the last five years these companies have ordered 78 reheat boilers for new stations — or additions to existing ones — representing an investment of more than $165,000,000 for steam generating equipment alone.

The *basic* reheat cycle, of course, is not new, but earlier reheat boilers were quite complicated and expensive, and most engineers did not consider that the fuel saving was sufficient to justify the higher first cost. In recent years two things have greatly altered this picture: 1. substantially increased fuel costs. 2. the development of simplified designs of reheat boilers.

Now, power stations using C-E Reheat Boilers require substantially less fuel to produce a kilowatt-hour of electricity than modern non-reheat stations built as recently as two years ago. These savings, which are in the order of 1 carload of coal out of 20, will help the electric utility companies offset, in some measure, vastly increased fuel, operating and tax costs — will help *keep* electricity "America's Best Buy".

This is another example of the utility industry's long established policy of giving every possible encouragement to technological progress, and of being quick to invest its capital in any development that promises higher operating efficiency.

Combustion Engineering has played a leading role in developing the modern reheat boiler. And this is the kind of design leadership you can expect when you turn to C-E for your steam requirements, whether utility or industrial—whether power or process—whether large or small.

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military and atomic projects, it will replace to some extent both the DO and NPA directives. Neither was extendable for components; the DX is. That is, if company A gets a DX rating, it can order a lathe from company B, and company B can extend the rating to company C to supply an electric motor or some other part of the equipment. The rating can be used for finished products, components, or materials—except steel, copper, and aluminum in the forms allocated under the Controlled Materials Plan.

Tighter Security

Munitions Board clamps down. Business will be stuck for cost of precautions unless contracts spell them out.

The Defense Dept. is tightening up on security policies. And it may cost government contractors money, unless they read all the fine print in their contracts.

The possibility arises from two new directives of the Munitions Board, which originates the security policies later policed by the services.

• MB has directed that the Defense Dept.'s industrial security manual be incorporated as a security clause in government contracts.

• It has declared that the government would not be obligated for security costs incurred under the agreement unless specific costs were already agreed to in a written contract.

In other words the measures you take to make your plant and product safe from unauthorized eyes must be spelled out in your contract if you expect to get reimbursed for them.

• **Services**—Actually, MB doesn't have the power to enforce security measures with you directly. That's the responsibility of the military service with which you contract. But MB does dictate the measures that should be taken. The service then sees that the precautions are carried out. Right now, the military services are planning a clampdown on violators. Spot checks will be made to insure that plants and products are protected.

MB has also recently made available a booklet that spells out the ABC's of how you get cleared for handling classified information. Need for the booklet became apparent recently when businessmen found out that military contracting officers couldn't discuss particulars of a classified item with prospective bidders until they were cleared to handle that information.

• **Good Risk**—You must be granted a facility security clearance for your plant

before classified military information, confidential or higher, will be given to you in connection with precontract negotiations. To get one, you fill out three forms: a security agreement, a personnel security questionnaire, and an alien questionnaire.

You can get the forms from the commanding general of the Army area in which you do business; from the commanding general of the Air Materiel Command at Wright Patterson Field in Dayton, for Air Force contracts; and, for Navy contracts, from the nearest Navy procurement office.

CHECKLIST: Defense Regulations

The following listing and condensed description cover all the materials and price-control regulations issued by the defense agencies during the preceding week.

Full texts of the materials orders may be obtained from National Production Authority, Washington 25, or from any Dept. of Commerce regional office.

Full texts of the price orders may be had from the Office of Price Stabilization, Washington 25, or from the regional OPS office in your area.

Materials Orders

Artificial graphite: Eliminates inventory limitations that were placed on artificial graphite and carbon electrodes. M-66 as amended (Sept. 11).

Aluminum scrap: Restricts use of aluminum to persons qualifying as producers, smelters, fabricators, or reclaimers under general definitions. Also revises definition of aluminum scrap and requires disposal of aluminum scrap every 30 days, or whenever a minimum carload is accumulated, whichever occurs first. M-22 as amended (Sept. 11).

Defense Dept.: Broadens Dept. of Defense authority to reschedule deliveries of materials required to carry out its ships and tank-automotive programs. Del. 1, Supp. 1 as amended (Sept. 11).

Tanning materials: Makes clear that vegetable tanning materials may be used only for tanning hides and skins or other processing of leather; manufacture of pharmaceuticals, water treatment products and tannic, gallic, or pyrogallic acid; blending of tanning materials; and in drilling of oil or gas wells or in making a product suitable for use in drilling wells. M-57 as amended (Sept. 11).

Automatic transmissions: Limits production of passenger cars equipped with automatic transmissions to 35% where the factory delivered price is $1,800 or less; 65% between $1,800 and $2,500; and 100% in cars of more than $2,500. Also prohibits passenger car builders from using engine pistons made of primary aluminum. M-68 as amended (Sept. 11).

DX Symbol: Establishes new symbol "DX" to be applied by NPA to orders calling for products, components, or materials other than steel, copper, or aluminum when delay in delivery would jeopardize top-urgency defense programs. NPA Reg. 2 as amended; CMP Reg. 3 as amended (Sept. 13).

Cotton duck: Relaxes order to permit looms, previously reserved exclusively for production of flat duck, to be used to manufacture other fabrics. M-53 as amended (Sept. 17).

Printing plates: Exempts textile print rollers used for imprinting natural textile goods, plastic products, and other synthetic textiles from regulation; adds magnesium to list of restricted metals; adds exemptions on small quantities of printing plates. M-65 as amended (Sept. 17).

Nickel silver: Permits use of nickel silver in manufacture of functional parts of certain musical instruments. M-80 Sched. A as amended (Sept. 17).

Controlled materials orders: Permits manufacturers to order up to 40% of their quarterly allotments of steel, copper, and aluminum for delivery in any month in that quarter. CMP Reg. 1, Dir. 3 as amended (Sept. 17).

Pricing Orders

Grain food and feed products: Removes family-size packages of flour, semolina, farina, enriched farina, corn meal, hominy grits, and pearl and other processed barleys, packed in 5-lb. or less containers, from CPR 22 and places them under GCPR. GCPR, SR. 18, Rev. 1, CPR 22, Amdt. 25 (eff. Sept. 15).

Muriate of potash: Sets dollars-and-cents ceilings on muriate of potash, which is an important source of fertilizer. GCPR, SR. 59 (eff. Sept. 15).

Apparel manufacturers: Permits manufacturing retailers to revise retail markups to take into account cost increases and makes changes in labor cost adjustments, base periods and methods of figuring net costs. CPR 45, Rev. 1 (eff. Sept. 11).

Virgin Island foods: Places dollars-and-cents ceiling prices on various livestock, meat, and meat byproducts sold in the Virgin Islands. CPR 73 (eff. Sept. 14).

Machinery resellers: Permits resellers to use their ceiling prices established under GCPR or Suppl. Reg. 29 while awaiting price approval from OPS. CPR 67, Amdt. 2 (eff. Sept. 22.)

Surgical gutstring: Permits manufac-

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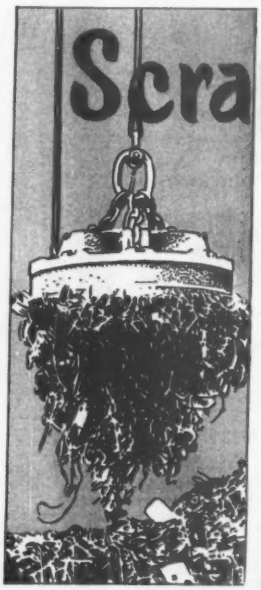
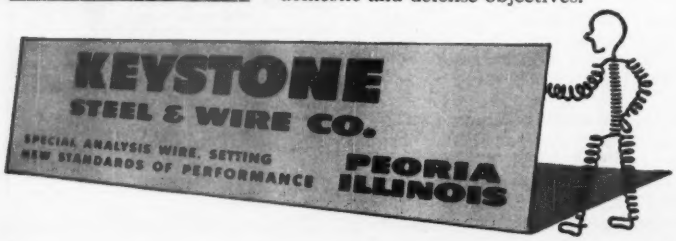


Scrap Is Vital!

COLLECT EVERY POUND OF SCRAP IN YOUR PLANT AND SELL IT TODAY

Iron and steel scrap, the vital ingredient in steel making, is in critically short supply. In order to keep America's steel industry producing at the highest rate in history . . . the "forgotten" or neglected scrap in your plant is urgently needed.

Search every corner of your plant for obsolete and discarded machinery, plates, sheets, gears, rails, scrap of every description. Sell it to your scrap dealer. More scrap turned IN . . . means more steel turned OUT to supply the tremendous demands of our domestic and defense objectives.



turers of surgical sutures made from green sheep intestines to reflect in their ceiling prices the increased costs resulting from increases in slaughterers' ceiling prices. GCPR, SR. 60; CPR 22, SR. 16 (eff. Sept. 19).

Crude botanical drugs: Exempts from price control more than 200 crude botanical drugs—roots, herbs, leaves, bark, seeds, flowers, and berries, both cultivated and wild—produced in the U. S. GOR 3, Amdt. 3 (eff. Sept. 17).

Service fee wholesalers: Changes pricing procedures of "service fee" wholesalers who make sales to customers other than those who have signed up under his fee plan. CPR 14, Amdt. 8; CPR 15, Amdt. 7; CPR 16, Amdt. 7 (eff. Sept. 22).

Coated fabrics: Indefinitely extends the time in which manufacturers of coated fabrics who have already established their ceiling prices may apply alternate methods for computing their ceilings. CPR 22, SR. 11, Amdt. 2 (eff. Sept. 17).

Processed beef: Permits processors of cured, corned, cooked, smoked, dried, and barbecued beef products to adjust ceiling prices to reflect current raw material costs. GCPR, SR. 61 (eff. Sept. 22).

Automobiles: Permits resellers of new passenger automobiles to adjust their ceiling prices to reflect increased manufacturers' costs of automobiles and of extra, special, or optional equipment purchased from manufacturers after Sept. 14. GCPR, SR. 5, Amdt. 6 (eff. from Sept. 14 until Oct. 15).

Wholesale beef ceilings: Increases ceiling prices on wholesale beef about 1¢ a lb. above old ceilings to restore to packers fair and equitable margins required by law. CPR 24, Amdt. 6; CPR 23, Amdt. 3 (eff. Sept. 19).

The Pictures—Cover—Acme. Acme—110 (bot.), 169; Dallas Jones Productions—70, 71; Walter R. Fleischer, Harvard Univ. News—60 (bot. lt.), 61 (top); Ford News Bureau—21 (top); General Motors—20 (top); Harris & Ewing—100 (bot. rt.); Int. News—26 (top), 30 (rt.), 37; Bob Isear—100 (top, bot. lt., bot ctr.), 101; Dallas Jones Productions—70, 71; Keystone—172 (bot.); Ed Nano—78, 79, 82; Bernard Newman—60 (top, bot. rt.), 61 (bot.), 62; North American Aviation, Inc. — 91 (bot.); Peterson Studios—138, 139; Rose Roy, Inc.—20 (bot.); Howard Staples—46, 47; Studebaker Corp.—21 (bot.); Three Lions—98, 99; U. S. Steel Corp.—22, 23; Wide World—26 (bot.), 34, 91 (top), 110 (top), 111, 158; Dick Wolters—25, 30 (lt.), 66.

Down, But Not Out!

Pocket size Military Radio, powered by Mallory Mercury Battery, speeds air-sea rescue

ONLY a few years ago, when an airplane was "ditched" into the ocean, the search for survivors required a careful combing of thousands of square miles of trackless sea.

Today, the downed pilot can pin-point his position for search planes and ships with a radio transmitter-receiver hardly larger than an emergency ration kit, yet rugged enough to withstand a forced landing and dousing in salt water, with a transmitting range of eighty miles or more.

The modern air-sea rescue transceiver demonstrates dramatically the unique features of the basically different Mallory Mercury Battery—unusual power, small size, extremely long "shelf life", constant voltage, long and uninterrupted service.

INTRODUCED during World War II, the Mallory Mercury Battery was an entirely new type of dry battery. It has since proved itself not only in military equipment but also in tiny new hearing aids and a variety of precision instruments. This is but one of many basic product developments reflecting the Mallory policy of maintaining leadership in its fields by technological anticipation of market needs.

If technical skill and precision workmanship in electrochemistry, electronics or metallurgy may be employed to make your product better or at lower cost, it will pay you to consult with Mallory. A wide range of products and a unique combination of research, engineering and production facilities are at your service.

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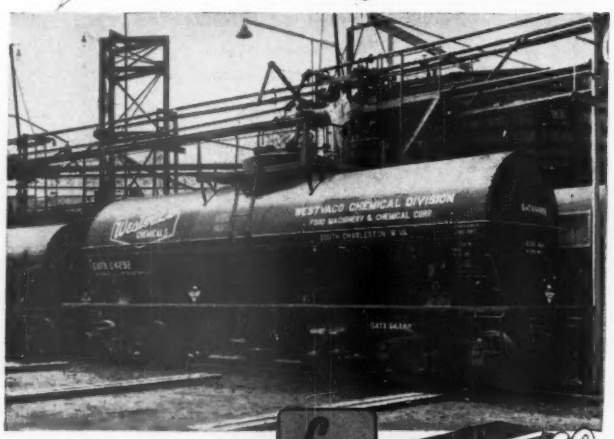

Westvaco Chemicals, such as caustic soda, are shipped in tank car quantities to the vast textile industry.

Just as the *chemistry of nature* helps the lowly spider produce the strong silken strands he weaves into his intricate web—basic chemicals produced by FMC's Westvaco Chemical Division provide the magic ingredients that transform cellulose into the amazing man-made synthetic fibers, which are woven into modern fashion-styled fabrics. Throughout the textile industry, wherever bobbins spin and shuttles weave, Westvaco chemicals make rayon better, cotton brighter and wool softer. In like manner, Westvaco Chemicals are serving essential needs in virtually every field of industry.

A more complete story of Westvaco Chemicals and other FMC Division-made products is contained in an illustrated booklet, "Know Your FMC's," available on request.

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INTERNATIONAL OUTLOOK

BUSINESS WEEK
SEPT. 22, 1951

Some big cracks are showing up in the West's rearmament program (page 169).

The Ottawa meeting of the North Atlantic Treaty Organization this week tried to patch things up. But NATO still looks weak on these counts:

- Western Europe hasn't the economic strength to carry the arms load it agreed to.
- NATO's 12-power setup is slow-moving, needs to be streamlined.
- West German rearmament is still in doubt, won't come—if at all—for six months at least.

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At Ottawa the U. S. agreed to spend around $500-million in Europe this year for off-shore arms purchases. For example, we might buy British tanks for the French army. That would help offset the cuts Congress is making in economic aid.

But such a program wouldn't close Europe's dollar gap by a long shot. And President Truman may have a sharp scuffle with Congress over off-shore buying.

Some Republican leaders already have been attacking the move as a dodge. Congress specifically has put a low ceiling on economic aid to Western Europe.

•

Ottawa decided to speed up NATO action with a top-level coordinating committee, representing the U. S., Britain, and France.

Still, this can't be more than a stopgap solution for NATO's problem—how to get action from a 12-nation body in which each member is supposedly equal. The big job is to make Britain and France strong, then rearm Germany. Now NATO gets bogged down trying to handle the problems of the smaller countries.

Some U. S. and European officials think there's only one possible solution: unification of the key Western European countries—France, Italy, Belgium, Netherlands, and West Germany.

Then the U. S., the British Commonwealth, and Western Europe could meet in NATO as equal partners.

Unification would also help remedy Western Europe's economic weakness. But that wouldn't happen right away.

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There are two sides to the problem of getting West Germany into NATO.

On the one hand, the Big Three have to agree on a program that will be acceptable to the Bonn republic. And the Germans today are asking for concessions that even the U. S. isn't ready to grant.

On the other, the West has to counter Russia's moves. And it's obvious that Moscow's big goal today is to keep West Germany disarmed.

•

There are two ways the Russians can try to achieve their goal in Germany:

(1) Make a genuine offer of free elections under U. N. supervision, then ask for a new Big Four conference on Germany.

(2) Conclude their own peace treaty with East Germany, try to frighten the West Germans with border incidents, etc.

If Moscow should choose the first course, it will be hard for Bonn to refuse. And the U. S., Britain, and France probably would have to accept the Russian bid to new German talks.

The blueprint for a European army (involving France, Italy, Belgium, Netherlands, and West Germany) will be ready next month.

As things look now, the basic unit in the joint army will be national divisions of 10,000 to 12,000 men.

The plan is to have one uniform, one flag, one pay scale, and one high command. Also there's to be a single budget voted by a five-nation legislative assembly.

The planners still haven't found a formula for dividing the costs. That's sure to be a tough problem. For member nations will be bound to accept—as final—the military budgets passed down by the international assembly.

•

When the European army blueprint is complete, it will have to be ratified by the five national parliaments. And you can expect big political battles in France and West Germany.

In France, both the Communists and de Gaullists already have said they'll oppose it. Some middle-of-the-roaders will, too. But chances are the plan will squeeze through the French National Assembly.

Adenauer probably can get approval from the Bundestag, assuming there are no hitches in Big Three plans to give Bonn its independence.

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London and Washington have given up hope of an agreement with Iran's Premier Mossadegh. Britain's policy now is to squeeze Iran financially, wait for Mossadegh to topple from power.

A possible successor is ex-premier Qavam. It was Qavam who stood up to Moscow in 1946, when the Russians were threatening to take over control of northern Iran.

But the aging Mossadegh begins to look like a pretty tough bird. He's arresting his political enemies, putting new pressure on British technicians at Abadan, and tightening up on British banking interests in Iran.

•

Mossadegh has banned foreign exchange dealings by the British Bank of Iran and ordered all government agencies to withdraw their deposits from the bank. That hits an important center of Western influence.

The Bank of Iran has a very different record than the Anglo-Iranian Oil Company. It has succeeded just where the big oil firm failed—in cultivating good public relations.

There's a network of close personal friendships between the bank and leading Iranian citizens. Branch managers of the bank meet daily over morning coffee with local merchants and politicians.

•

It's official now. Britons will march off to the polls on Oct. 25 to elect a government.

It was London's new dollar gap and the rearmament pinch that forced Prime Minister Attlee to call for general elections. Labor Party bigwigs see now that sharp slashes in Britain's living standards are inevitable this winter. That's why they wanted to go to the voters this fall while the going is relatively good.

Some London prophets think Attlee has a chance of winning with a bare handful of seats. But the betting is running six to four that Churchill can come out on top with a 10- to 30-seat majority.

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BUSINESS ABROAD

BIG THREE TABLEAU: Schuman tells France's troubles, Morrison of Britain waits to chime in, while Secretary Acheson finds . . .

U.S. in Middle of West Europe's Worries

During the past two weeks, first in Washington and then in Ottawa, the West's statesmen have taken another look at the problem of rearming Western Europe.

In undiplomatic language, here's what they found:

• Western Europe hasn't the economic strength to produce both guns and butter—without a lot more aid than the United States Congress wants to give.

• West Germany is playing hard to get, may ask too high a price for joining the Western team.

• **Bad Time for Crisis**—From the West's angle, this is no time for a crisis in European rearmament. Supposedly, we're at a turning point in the cold war. The U. S. military buildup is stiffening our Russian policy—and pushing the Kremlin to the point at which it must decide whether it is going to fight or back down.

But there's no disputing the facts that came up in the Washington and Ottawa talks. They showed a balance sheet for European rearmament that's pretty heavily in the red:

• Britain's rearmament is threatened by serious dollar troubles.

• French rearmament is still largely a blueprint, may be frozen at present levels by inflation.

• Even the beginnings of German rearmament look at least six months away, due to the snarls of domestic and international politics.

I. Britain: Dollar-Poor

Rearmament is producing a new dollar crisis in Britain. It looks now as if the sterling area's third-quarter dollar deficit will be close to $500-million, the fourth-quarter deficit about $300-million. What's more, it's likely the dollar drain will continue in 1952. If the loss for the first half of next year should be $400-million, that would bring London's gold and dollar reserves down to $2.6-billion, against $3.8-billion on July 1, 1951.

This estimate doesn't allow for a spread of the Korean War. Nor does it weigh in the pyschological impact of these big deficits. There's a real danger that their mere announcement may trigger a new run on the pound. In any case, they are sure to strengthen the political hand of Aneurin Bevan and thus make bold policy decisions harder for the Attlee government.

• **Small Miracles**—Given some favorable breaks, Britain might be able to stay out of the red on its dollar account next year. But it will take breaks like these:

• A settlement in Iran. Loss of Iranian oil currently is costing the sterling area between $350-million and $500-million a year.

• An extra 800,000 tons of steel from the U. S. This is essential if Britain's industries are to handle both rearmament and export orders.

• No further deterioration in the terms of trade. British import prices have gone up 35% since Korea, while the prices of British exports are only 14% higher. (British Treasury estimates that about half the trade deficit is due to the direct impact of British rearmament, half to the worsening of the terms of trade.)

• **Spirit Is Willing**—The Attlee government is still determined to push ahead with its £4.7-billion three-year rearmament program. But that could become physically impossible if the dollar drain isn't checked by next year—or covered by U. S. aid.

The dollar gap can't be closed by boosting exports or slashing imports, without hurting arms output. To cover the present trade deficit, Britain would have to return to making export goods instead of extra munitions under the three-year program. For the U. S., rearmament is primarily a problem of boosting production. For Britain, it's a question of diverting resources and cutting civilian consumption.

Britain's economy already is carrying quite a military load. Defense is taking about 10% of the gross national product, compared with 6.5% in 1938. More men are under arms than in 1938. And British taxes are the highest in the

world—33.7% of national product as against 26.2% in the U.S.

II. France: Runaway Prices

Inflation is the big threat to French rearmament. Even by official indexes, wholesale prices are up 30% since Korea, retail prices 21%. But 40% and 30% respectively probably would be closer to the truth.

Meanwhile, wages have increased only about 10%. True, the government is ready to boost minimum wages another 15%. But that won't bring the take-home pay of French workers into line with price increases to date.

• **Worse to Come**—The inflation, in fact, is only beginning to gather steam. Up to this point it has been largely a matter of private speculation against the currency. In other words, Korea scared people into spending their money.

So far, the traditional sources of French inflation—budgetary deficits, credit expansion, and the like—haven't really come into play. But now that the wage and price spiral has begun to hit government payrolls and private business reserves, it looks as if there's no way France can avoid a bout with the full inflationary cycle. The odds are that the government will run at least $1-billion deficit this year.

• **Two Blows in One**—Inflation will hit French rearmament in two ways. It will: (1) cut the number of troops and guns that can be paid for with the same amount of money, and (2) increase labor unrest, thus lend force to the Communist and neutralist argument against rearmament.

The Communists already are capitalizing on the drop in workers' purchasing power. They have lined up all the non-Communist labor unions behind a fight for a 25% rather than a 15% minimum wage increase.

Both U.S. and French officials now are abandoning the line that France can have guns without sacrificing butter. They admit that the country can't carry even a limited rearmament effort without a steep inflation.

• **Arms Cutdown**—Here's where the French stand today on rearmament.

The Moch Plan (20 divisions and roughly $1-billion worth of new military production capacity by the end of 1953) was slated to cost France the equivalent of $4-billion in calendar 1952. That compares with 1951 defense spending equal to $2.6-billion.

As the French figured it, the Moch Plan would involve about $750-million, which could only be covered by U.S. aid, exclusive of any arms shipped from the U.S. Washington officials have always thought this dollar-gap figure was too high. But they do know now that the Moch Plan calls for more dollar aid than we are willing to give France.

Actually, the French already have started to revise the plan downward by cutting out a big chunk of the military production projects. It's hoped they still will be able to meet their troop commitments, although some delay can be expected.

After these cutbacks are made, France's military load stacks up this way: About 8% of its gross national product will go for defense in 1952. More Frenchmen are in the armed forces than in 1938. French taxes take 27.3% of the national product.

III. Germany: Sharp Bargaining

U.S. officials think they can get German rearmament under way before the end of this year. A more realistic estimate probably would be spring or summer of 1952.

True, the Big Three succeeded in ironing out most of their own top-level political differences last week in Washington. But the practical details of how to rearm Germany, and how to pay for it, still hadn't been settled. And all the complicated economic, military, and administrative problems of setting up the joint European army remain to be solved.

• **We Pay the Check**—The Germans are insisting that their initial rearmament expenses must be deducted from occupation costs. Any defense outlay over and above this will have to be paid for by the Allies. Yet the French and British won't be able to foot their own occupation bills. So the odds are that the U.S. will have to pick up most of the check for German rearmament in one way or another.

• **German David Harums**—Probably the biggest stumbling block to German rearmament is the current attitude in the Bonn republic. Right now, most Germans want to use their strong bargaining position to exact a high price for any contribution they make to Western defense.

A good part of the German press, plus the opposition parties, are screaming for complete economic sovereignty, freedom from occupation costs, return of the Saar, a guarantee that Eisenhower would carry any war immediately to the Vistula, collective absolution for German World War II crimes.

The Allies won't grant these concessions, of course. They're hoping that the Germans will be more reasonable when the actual bargaining begins. Still, it will take, at best, months of tough negotiation to reach an agreement. And during the interval Moscow is sure to do everything possible to keep West Germany out of NATO.

At the worst, the Germans could price their cooperation out of the market. That would force a complete redrafting of Western defense strategy.

BUSINESS ABROAD BRIEFS

Announcement by

Anglo-Iranian Oil Company, Limited

It has been brought to the Company's notice that the Government of Iran in disregard of its solemn obligations to the Company, of the recent Order of the International Court of Justice, and of its international obligations, attempts to sell crude oil and oil products derived from the area covered by the Convention of 29th April, 1933.

The company is confident that no oil company of repute or any tanker owners or any brokers of standing will countenance any direct or indirect participation in the unlawful actions of the Iranian Government. Should, however, any concerns or individuals enter into transactions with the Iranian Government in regard to the oil products concerned, they are warned that the Company will take all such action as may be necessary to protect its rights in any country.

*

ANGLO-IRANIAN OIL COMPANY, LIMITED
Britannic House, Finsbury Circus,
London, E.C.2, England

Stolen goods: This warning popped up in the financial sections of U.S. papers last week. AIOC says it will take "all such action as may be necessary" against any oil company, tanker owner, or broker who buys oil originating in the company's concessions in Iran. Probable action: a long-drawn-out suit in local courts, citing the decisions of the World Court at The Hague.

•

Mohawk Carpet Mills, Inc., opened its first foreign factory last week in Mexico City. A new subsidiary, Carpetas Mohawk de Mexico, will turn out 119,000 sq. yd. of rug material yearly in a $1,115,000 plant.

•

Brazil business: B. F. Goodrich Chemical Co. has got together with Brazil's Matarazzo industrial interests to set up a jointly owned plastics manufacturing outfit, Geon do Brasil, at Sao Paulo. . . . Sao Paulo will be the site of a new 600-room hotel, latest in the chain of overseas hostelries being built by Inter-Continental Hotels Corp., a Pan American Airways affiliate (BW—Apr. 22'50,p110). . . . Germany's Mannesmann industrial combine plans a steel pipe works near Belo Horizonte. The Krupp interests are studying possibilities of a branch operation at Sao Paulo.

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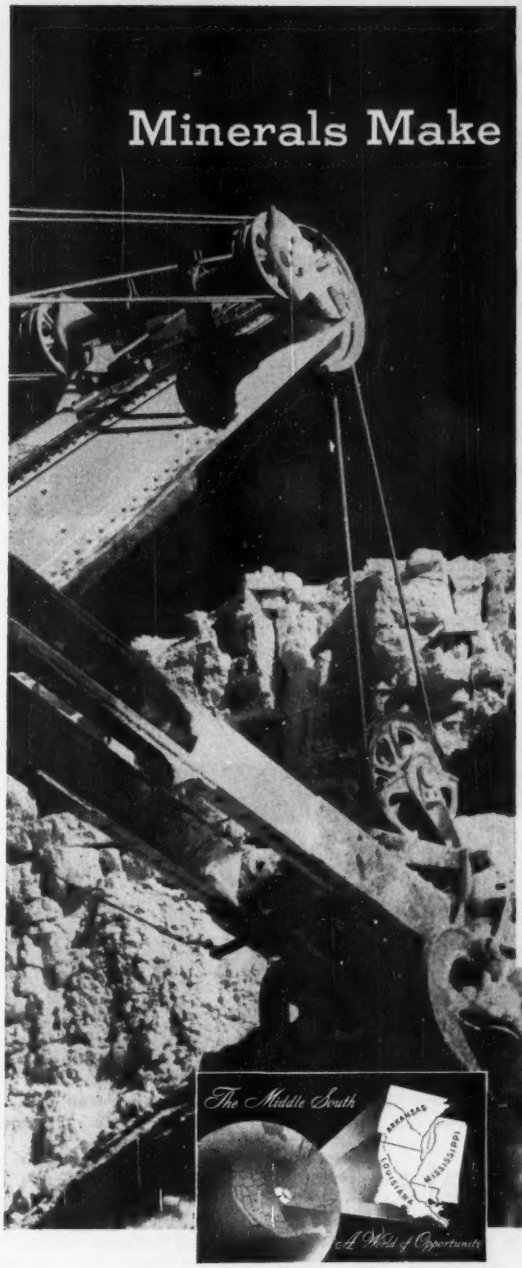
Thor Corp., Chicago, has signed up an Italian licensee, the San Giorgio Co. of Genoa, to produce its washing machines in Italy.

•

The Belgian Congo is down for $70-million in loans from the World Bank. It's part of a 10-year, $600-million development scheme for the Congo's transport, communications, power, public health, agriculture.

Minerals Make Middle South *Progress*



Mineral industries add steadily to the Middle South's economic progress. Their total production has increased almost fourfold since 1940—from a *raw material* value of $177 million to $829 million. Today, throughout Arkansas, Louisiana and Mississippi, business enterprises continue long-range development of mineral resources like barite, bauxite, clays, coal, salt, sulphur, limestone, petroleum, and natural gas.

Middle South minerals—processed in the area—are the basis for tripled output, since 1940, from Middle South factories. Thus, by supplying raw materials, mineral developers add impetus to the area's manufacturing, its payrolls and, in turn, a long list of businesses reaching right down to Main Street.

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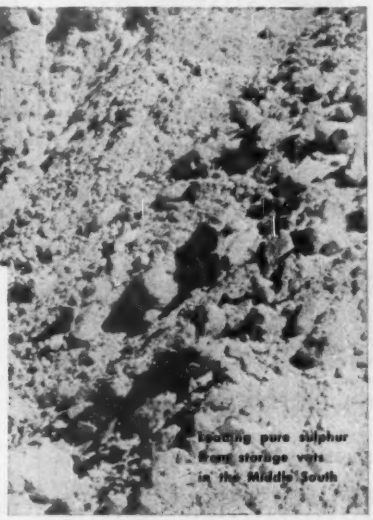
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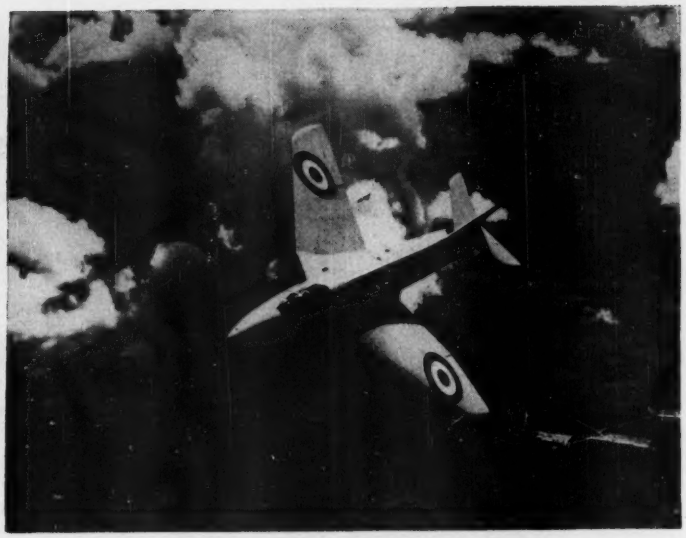
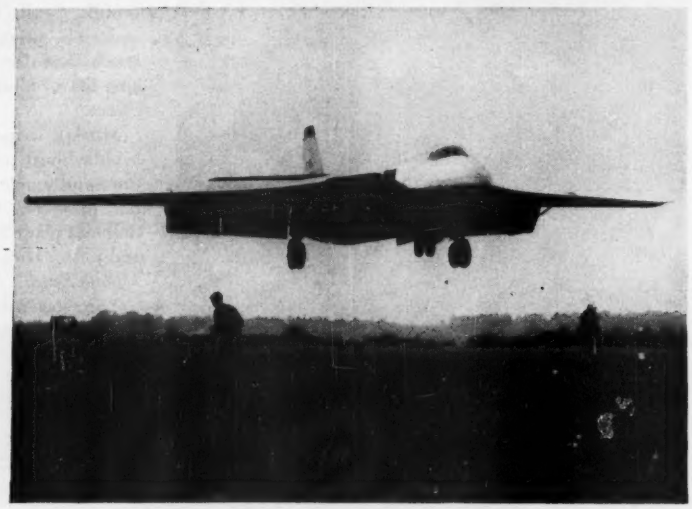


NEW FIGHTER Hawker Siddeley's P-1067 may be world's fastest fighter, has been clocked unofficially at speeds that top U. S. records.



NEW BOMBER Vickers' Valiant, a four-jet attack ship, may be built in U. S. under deal similar to that for English Electric Co.'s Canberra.

British Jets: Fast but Few

Britain's finest in aviation zoomed before a crowd of 200,000 last week at the Society of British Aircraft Constructor's flying display at Farnborough, England. The verdict: Britons needn't take a back seat to anybody in designing airplanes; but many more men and materials are needed if Farnborough's promise is to result in quantity production.

• **Military on Top**—The military dominated the show. New planes that strutted their stuff last week will be the backbone of the Royal Air Force tomorrow. Hawker Siddeley Group's new P-1067 (top picture), Britain's answer to Russia's jets, awed the crowd with a flat-out speed run unofficially clocked at 690 mph. That's 20 mph. over the official world record, held by the U. S. F-86. In addition, two other fighters, built by Vickers-Armstrongs, Ltd., topped 600 mph. going away.

Another show-stopper was Vickers'

Valiant (bottom picture, page 172), a sleek, four-jet bomber that may be Britain's second contribution to U.S. air might. Rumor has it that the Valiant may be produced here as a stablemate for the Air Force's new Boeing B-47. English Electric Co.'s Canberra is already in U.S. production by the Glenn L. Martin Co. as a night attack bomber (BW—Mar.3'51,p136).

• **One Engine**—As the engine maker, Rolls-Royce, Ltd., shared the spotlight with the four new planes. All four of the aircraft are powered by Rolls' Avon jet engines. In fact, practically all new British military aircraft, plus De Havilland's famed Comet airliner, will soon be powered by Avons. Plans are in the mill to add five new Avon production lines in Britain to help out the present one at Derby, plus a seventh to be built in Canada. Almost half the $112-million worth of machine tools Britain ordered recently in the U.S. will go into the Avon program.

• **Civilian Progress**—There was plenty of talk of civil aircraft, too, underlining Britain's commanding lead in jet transport development. Sir Miles Thomas, chairman of British Overseas Airways, told the air-show crowd that he expected to have "two all-British round-the-world routes in the next few years, one circling the northern hemisphere, the other south of the equator through Australasia."

BOAC has ordered 20 Comets, the first of which will go into service next spring on the London-Johannesburg run. The Bristol 175, a turboprop job soon to emerge from security wraps, will also fly BOAC routes. Meanwhile, another nationalized airline, British European Airways (serving the British Isles and continental Europe), will have the world's first turboprop service running next fall when the Vickers Viscount will be delivered in quantity.

• **Production**—But there's one big catch in Britain's air plans: production. U.S. airmen like to criticize the British (and the French, too) as builders of fine prototypes, but backward when it comes to mass production.

There's a lot in this charge. None of the new fighters and bombers shown at Farnborough can be available to the RAF in quantity much before 1954. And even that won't be possible unless the government acts quickly to provide more manpower for British aircraft plants.

Only about 160,000 Britons are employed in plane production now, as against 1.3-million at the World War II peak. Another 160,000 are needed in the next few months to meet initial rearmament goals. Yet hirings during the last quarter have averaged a trickling 800 or so monthly.

• **Hamstrung**—British airplane makers claim the government has no program

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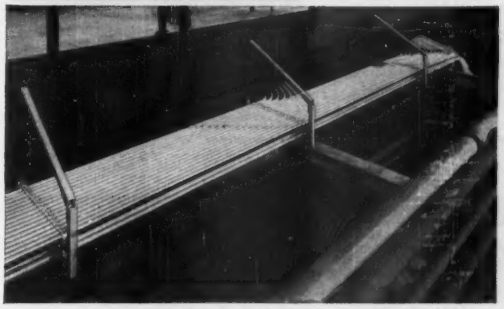

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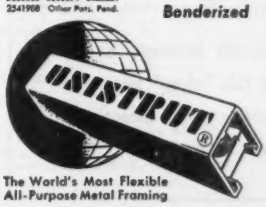

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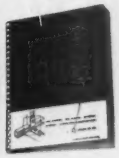

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at all to lick the manpower problems. The government admits it's hamstrung by severe housing shortages and by the tenacious way British businessmen are holding onto every muscle of labor they can find (BW—Sep.8'51,p156). Eventually, direction of labor may be the only answer; but right now it's out of the question politically.

In the long run, say British aviation circles, their country will have to push its aircraft industry at the expense of other important production. They argue that big British customers like India, South Africa, and Latin America will be making more and more of their own consumer goods, like textiles, for example, but the day is still far off when they can build their own airplanes.

Kellogg Bowls Over Mexican Cereal Trade

Starting this month, breakfasting Mexicans can enjoy the cheery lilt of homegrown Kellogg cereals, snapping, crackling, and popping alongside their traditional (and silent) fare of tortillas and warmed-over beans. At Queretaro, 300 mi. north of Mexico City, the Kellogg Co. of Battle Creek, Mich., has just opened its first factory south of the border.

Kellogg already had foreign plants in Britain, South Africa, Australia, and Canada and thinks the Mexican market fits naturally into the system. After all, says Kellogg president W. H. Vanderploeg, "Corn has always been the main food of Mexico—even before the Spanish arrived." Kellogg's new subsidiary, Kellogg de Mexico S.A., plans to continue the tradition by producing 1.5-million boxes of Cornflakes—and Rice Krispies—yearly.

• **All Set to Go**—Everything, including boxes, will be made in Mexico. Kellogg's $1.2-million plant is right in the middle of Mexico's corn belt. It's on the main rail line, making wide distribution easier. And by staying away from the crowded Mexico City industrial area, Kellogg hopes to avoid high taxes, high labor costs, and controls. Also—for what it's worth—the Carnation Co.'s Mexican milk plant is just down the road in Queretaro.

The introduction of strictly American habits like Cornflakes isn't brand-new in Mexico. A businessman there began importing precooked cereals back in 1924 to take care of the U.S. colony. Later, a local advertising campaign expanded sales; last year over 1-million boxes of cereals were imported. Now, the new Kellogg plant cuts 20% from the cost of Cornflakes in Mexico. Kellogg hopes that the price incentive, plus a stepped-up ad campaign, will make the Mexico move profitable.

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Agency—Fuller & Smith & Ross, Inc.

ANGIER CORP. 79
Agency—Larcom Randall, Adv.

APPLETON ELECTRIC CO. 32
Agency—Aubrey, Moore & Wallace, Inc.

ASSOCIATION OF AMERICAN RAILROADS .. 52
Agency—Benton & Bowles, Inc.

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Agency—N. W. Ayer & Son, Inc.

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Agency—The Aitkin-Kynett Co.

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Agency—Gerth-Pacific Adv. Agency

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Agency—Tobias & Co.

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Agency—Hixson & Jorgensen, Inc.

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Agency—Zimmer, Keller & Calvert, Inc.

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Agency—Ellington & Co., Inc.

CLUES 174

COMBUSTION ENGINEERING-SUPERHEATER INC. 161
Agency—G. M. Basford Co.

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Agency—Christiansen Adv.

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Agency—Ketchum, MacLeod & Grove, Inc.

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Agency—The Buchen Co.

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GENERAL ELECTRIC CO., CHEMICAL DEPT. 115
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Agency—Maxon, Inc.

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Agency—H. M. Klingensmith Co.

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Agency—Fuller & Smith & Ross, Inc.

THE HINDE & DAUCH PAPER CO. 42
Agency—Howard Swink Advertising Agency, Inc.

HORDER'S INC. 151
Agency—Frank C. Jacobi Advertising

HOTELS STATLER CO., INC. 14
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Agency—Reincke, Meyer & Finn, Inc.

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Agency—The Aitkin-Kynett Co.

MARINE OFFICE OF AMERICA 34
Agency—Prince & Co., Inc.

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Agency—Doyle, Kitchen & McCormick, Inc.

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Agency—Ketchum, MacLeod & Grove, Inc.

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Agency—O'Grady-Andersen-Gray, Inc.

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MIDDLE SOUTH AREA 171
Agency—Dixie Advertisers

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Agency—Batten, Barton, Durstine & Osborn, Inc.

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Agency—Ayers and Associates, Inc.

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Agency—J. Walter Thompson Co.

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Agency—Fuller & Smith & Ross, Inc.

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Bretton Woods: The Road Ahead

What the passing years have done to some of the plans for the brave new postwar world was played out dramatically in Washington last week. The boards of governors of the Bretton Woods institutions—the International Monetary Fund and the International Bank for Reconstruction and Development—gathered from all over the world for their sixth annual meeting.

What was reported would have made hard listening for their late chief architects, John Maynard Keynes of Britain and Harry Dexter White of the United States. Their brain children have had tough going.

The Fund's mission was to dredge out the clogged channels of international exchange. That meant trying to persuade nations to relax and remove exchange controls, quotas on imports, discrimination against shipments from certain nations, and other hobbles to freer trade. So far it has done little beyond making a few small advances to countries in balance-of-payments difficulties and bringing about the declaration in 1947 of official exchange parities for member nation currencies. But its main job has gone undone. Now with the March, 1952, deadline for the removal of trade and exchange restrictions approaching, searching questions are being asked as to why hopes have been so blasted.

A Wrong Guess

First off, this must be said: The designers of the Fund woefully miscalculated the kind of world into which they were launching it. It has stood ready, willing, and able to help out nations in need of short-term loans to meet temporary adverse trade balances. It was not prepared to help them with their fundamental trade problem: having little to sell abroad to buy the huge imports needed to rebuild their ravaged economies.

But even under these adverse conditions, the Fund has done a poor job. It has a top-heavy administrative setup with a full-time board of directors—enough to cripple and delay any effective program. It has acted irresolutely, such as in the matter of who should control the European Payments Union set up by the Economic Cooperation Administration last year. It was awkward in the whole devaluation episode in the autumn of 1949. It waited until a *fait accompli* was at hand, which it then blessed as the best possible thing that could happen.

Things have gone better with its sister institution, the World Bank. Its task is to make development loans. This it has done, even though on a scale much more limited than its founders dreamed. It has made a total of 48 loans amounting to the equivalent of something over $1.1-billion. This is small change measured against the capital needs of its member countries, and some of them have said so. But the Bank's able management, first under John McCloy and now under Eugene Black, has been tough-minded and realistic. And these men have had to be exactly that because the Bank must meet the test of the financial markets if it is to secure funds for lending at reasonable rates.

Another major factor explaining the Bank's limited operations so far has been the vast ECA program and the lending of our own Export-Import Bank.

What Will Be Done?

The road ahead for the Bank is reasonably clear. Its job is marked out; its policies are set; its credit is excellent. The agency's main task is to decide how rapidly it can safely move to meet capital needs, especially in underdeveloped countries. As part of that problem it faces the issue of how it can help solve the critical shortage of equity money in these places.

What's ahead for the Fund is obscure. The world its creators foresaw is about as far away today as it was in 1945. The cold war may persist for 50 years. And certainly the British are right when they point out that it makes little sense for them, and others, to be asked to rearm speedily and relax trade controls at the same time. But the problem runs deeper. The Fund has yet to show that it can prevail in altering the commercial and monetary policies of national governments.

The proposal, advanced at Bretton Woods and repeated often since, to whittle down the Fund and attach it as an appendage to the Bank has merit, but little hope of acceptance by either group. Perhaps we come to no other conclusion but to maintain the $8-billion Fund in a more-or-less standby condition to move when and as it can and not expect too much of it. It has just acquired a new managing director, Ivor Rooth of Sweden. His first job, in our opinion, is to try to figure out what his job is.

Conscience Money

A Michigan farmer sent back $11 to the federal government in two separate checks. Each had paid him for attending a lecture meant to teach farmers better methods. Neither lecture, he said, had taught him anything he didn't know, so he returned the pay.

Conscience money is an old American habit and a good one. But that isn't what catches our eye.

Have modern farmers been made so blind to their own interests by a paternalistic government that they must now be paid to learn their own business?

As part of a far-flung political mobilization they are put on the payroll for all sorts of things including lectures that they could perhaps better give than hear.

The Michigan man's action is a straw in the wind. It suggests that the pressure for bigger farm programs comes more from the benefactor than from the beneficiary. The day is gone when Big Government should be allowed to create needs so it can fill them out of the public treasury.

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